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National Air Toxics Information Clearinghouse: Ongoing Research and Regulatory Development Projects, July 1989

Radian Corp., Research Triangle Park, NC

Prepared for:

Environmental Protection Agency, Research Triangle Park, NC

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U.S. Department of Commerce
National Technical Information Service
NTIS

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NATIONAL AIR TOXICS INFORMATION CLEARINGHOUSE

EPA Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

STAPPA / ALAPCO State and Territorial Air Pollution Program Administrators
Association of Local Air Pollution Control Officials

Ongoing Research and Regulatory Development Projects

July 1989

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The purpose of this document is to inform State and local agencies and other Clearinghouse users of current research and regulatory development projects underway at the US EPA, the National Institute for Occupational Safety and Health, the Agency for Toxic Substances and Disease Registry, and State and local agencies, and to help them identify sources of specific air toxics information. Every effort has been made to ensure accuracy as of April 1989, the date that compilation of information was completed. However, further changes in agency priorities and funding levels may change the scope and estimated project completion dates.

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CHIPs - Chemical Hazard Information Profiles
CAS - Chemical Abstract Services registry number(s)
ATSDR - Agency for Toxic Substances and Disease Registry

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NATIONAL AIR TOXICS INFORMATION CLEARINGHOUSE: ONGOING RESEARCH AND REGULATORY DEVELOPMENT PROJECTS

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July 1989

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PREFACE

In response to State and local agency requests for air toxics information, the U. S. Environmental Protection Agency has designed and is implementing the National Air Toxics Information Clearinghouse. This information dissemination center has been developed in cooperation with the State and Territorial Air Pollution Program Administrators (STAPPA) and the Association of Local Air Pollution Control Officials (ALAPCO).

The purpose of this document, published by the National Air Toxics Information Clearinghouse, is to inform State and local agencies and other Clearinghouse users of current research and regulatory development projects underway at the U. S. Environmental Protection Agency, the National Institute for Occupational Safety and Health, the Agency for Toxic Substances and Disease Registry, and State and local agencies, and to help them identify sources of specific air toxics information. Every effort has been made to ensure accuracy as of April 1989, the date that compilation of information was completed. However, future changes in agency priorities and funding levels may change the scope and estimated project completion dates.

This document is the 1989 update of the annual National Air Toxics Information Clearinghouse ongoing research document, last published in July 1988. The Clearinghouse plans to continue updating this document on an annual basis. Other documents published by the Clearinghouse include:

- National Air Toxics Information Clearinghouse: Rationale for Air Toxics Control in Seven State and Local Agencies, EPA-450/5-86-005, PB86-181179/XAB, August 1985;
- National Air Toxics Information Clearinghouse: How The Clearinghouse Can Help to Answer Your Air Toxics Questions, EPA-450/5-86-009, PB88-157813/XAB, July 1986;
- National Air Toxics Information Clearinghouse: Methods for Pollutant Selection and Prioritization, EPA-450/5-86-010, PB87-124079/XAB, July 1986;

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- National Air Toxics Information Clearinghouse: Qualitative and Quantitative Cancer Risk Assessment, EPA-450/5-87-003, PB88-113188/XAB, June 1987;
- National Air Toxics Information Clearinghouse Report on State, Local, and EPA Air Toxics Activities, EPA-450/5-87-006, PB88-113428/XAB, July 1987;
- National Air Toxics Information Clearinghouse: NATICH Data Base Users Guide for Data Entry and Editing, EPA-450/5-88-001, PB88-202734/XAB, February 1988;
- National Air Toxics Information Clearinghouse: NATICH Data Base Users Guide for Data Viewing, EPA-450/5-88-002, PB88-197470, February 1988;
- National Air Toxics Information Clearinghouse: Case Studies in Risk Communication, EPA-450/5-88-003, PB89-104277/XAB, May 1988;
- National Air Toxics Information Clearinghouse Newsletter, A Periodical, 26 issues to date, December 1983 - March 1989; and
- National Air Toxics Information Clearinghouse: Bibliography of Selected Reports and Federal Register Notices Related to Air Toxics, four volumes: EPA-450/5-87-005, PB88-136601/XAB (Volume 1: Citations), July 1987; EPA-450/5-88-005, PB89-103436/XAB (Volume 2: Citations - 1988), July 1988; EPA-450/3-89-25, NTIS number not yet available (Volume 3: Citations - 1989), July 1989; and EPA-450/3-89-25a, NTIS number not yet available (Index - 1989), July 1989.

ABSTRACT

The National Air Toxics Information Clearinghouse has been established by the U. S. Environmental Protection Agency's (EPA) Office of Air Quality Planning and Standards for the purpose of facilitating information transfer among Federal, State, and local air quality management agencies. This document has been published as part of that effort. Its purpose is to inform State and local agencies and other Clearinghouse users of U. S. EPA, National Institute for Occupational Safety and Health (NIOSH), and State and local agency research and regulatory development projects concerning toxic air pollutants. This year's document also includes profiles under development by the Agency for Toxic Substances and Disease Registry (ATSDR).

The document is divided into two parts and an appendix. The first part lists 379 air toxics projects currently in progress at EPA, NIOSH, ATSDR, and State and local agencies. A brief description of each project and a contact name, office, and telephone number are given. The second part of the document contains the index that allows readers to locate projects of interest. Projects are indexed by agency, project type, chemical name, Chemical Abstract Service (CAS) number, and source category Standard Industrial Classification (SIC) Code. The appendix lists regulatory development projects on toxic chemicals underway at the EPA's Office of Drinking Water (ODW). While most of these projects are not directly related to air problems, health information on toxic chemicals from ODW projects may be of interest to Clearinghouse users.

This work complements information contained in the Clearinghouse documents entitled "National Air Toxics Information Clearinghouse: Bibliography of Selected Reports and Federal Register Notices Related to Air Toxics, Volume 1: Citations," July 1987 (EPA-450/5-87-005); Volume 2: Citations - 1988, July 1988 (EPA-450/5-88-005); Volume 3: Citations - 1989, July 1989 (EPA-450/3-89-25); and Index - 1989, July 1989 (EPA-450/3-89-25a).

This document was submitted in partial fulfillment of EPA Contract No. 68-D8-0065, Work Assignment No. 7, by Radian Corporation under the sponsorship of the U. S. Environmental Protection Agency. Compilation of data was completed in June 1989, and the report was completed in July 1989.

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National Air Toxics Information Clearinghouse: Ongoing Research and Regulatory Development Projects, July 1988
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Identifiers: *National Air Toxic Information Clearinghouse; *Toxic substances; NATICH; NTISEPAADP
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INTRODUCTION

This list of ongoing research and regulatory development activities has been compiled by the National Air Toxics Information Clearinghouse as one of several tools designed to facilitate exchange of information for toxic air pollutants. A total of 379 ongoing projects are listed. These projects have been funded by the U.S. Environmental Protection Agency (EPA), National Institute of Occupational Safety and Health (NIOSH), Agency for Toxic Substances and Disease Registry (ATSDR), or State and local agencies. The sponsoring agency, a contact name and telephone number, and a description of the work are provided for each project. To facilitate use of this document, the projects are indexed by sponsoring agency, project type, chemical name and Chemical Abstract Service (CAS) registry number, source category Standard Industrial Classification (SIC) Code, and SIC Code title.

This document is designed to help Clearinghouse users identify sources of information for specific air toxics questions or problems. It is an updated version of the July 1988 Clearinghouse "Ongoing Research and Regulatory Development Projects" document (EPA-450/5-88-004, PB89-103428/XAB). The list of projects contained in this document focuses on studies which have not yet resulted in publicly available reports. The list indicates estimated completion dates as well as a contact person who can provide study details. In future updates of this document, new projects will be added, and the dates and names previously provided will be updated as required. Projects that have been completed since the last edition have been removed. Some of these projects resulted in published reports which are listed in the July 1989 Clearinghouse publication "Bibliography of Selected Reports and Federal Register Notices Related to Air Toxics, Volume 3: Citations - 1989." Clearinghouse users should keep previous reports for a complete list of research activities that have been conducted by the various agencies.

DOCUMENT SCOPE

Eighteen types of projects which are considered to be of greatest interest to agencies concerned with the regulation of toxic air pollutants are included in this compilation. Both basic scientific research projects and studies conducted to assess the need for regulations and/or to support regulatory development activities have been included. Federal regulations may or may not be developed for sources and/or pollutants covered by these projects. The 18 categories of projects are briefly defined below.

1. Accident Prevention/Emergency Response - These projects range in scope from establishing accident prevention and emergency response measures to evaluating releases or spills and preparing appropriate responses to the accident. This includes procedures under development to meet the SARA Title III community-right-to-know program requirements.

2. Ambient Monitoring - Projects that develop methodologies for monitoring hazardous air pollutants or to conduct monitoring studies.

3. CHIPs - Chemical Hazard Information Profile - These profiles are prepared by EPA's Office of Toxic Substances which compiles preliminary information about sources, environmental distribution, exposure, and health effects of specific chemicals.

4. Control Technology - Projects that address control of air toxics from specific sources or methods to mitigate effects from toxic pollutants in a geographic area (i.e., effects of urban soup).

5. Dispersion Modeling - Projects in which dispersion modeling of an air pollution source or sources emitting toxic air pollutants is performed. Also included are projects that develop models to evaluate the dispersion characteristics of air toxics attributed to geographical and meteorological influences.

6. Emission Factor - Projects that develop emission factors for specific air toxics or to compile emission factors from previously published data.

7. Epidemiology Studies - Epidemiology studies primarily funded by NIOSH examining human health effects possibly resulting from exposure to toxic air pollutants.

8. Exposure Assessments - Projects that estimate the population exposed to ambient concentrations of specific air toxics.

9. Health Assessments - Projects that result in the compilation of information on health effects of specific air toxics chemicals.

10. Indoor Air - Projects that study indoor air pollutants, including methods development for monitoring and health and exposure assessments.

11. NESHAP - EPA projects that support the development of national emission standards for hazardous air pollutants (NESHAP) under Section 112 of the Clean Air Act. These projects may include collecting or generating the following types of information: an analysis of the affected industry or air pollution source including emissions data and applicable control technology; an analysis of regulatory alternatives in terms of potential environmental, economic, and energy impacts; and health information including exposure and risk assessments.

12. NSPS - EPA projects that support the development of new source performance standards (NSPS) for sources of certain hazardous air pollutants under Section 111 of the Clean Air Act. These projects may involve gathering or generating the following types of information: an analysis of the affected industry or air pollution source including emissions data and applicable control technology and an analysis of regulatory alternatives in terms of potential environmental, economic, and energy impacts.

13. Pre-Regulatory Assessments - Projects that assess whether specific air pollutants should be regulated under the Clean Air Act or other appropriate mechanisms. These projects include reviewing the health effects, sources, air emissions, and potential for public exposure to the specific pollutants.

14. Regulatory Development Guidance - EPA-funded projects that provide guidance to State and local agencies on development of air toxics control programs.

15. Risk Assessments - Projects that estimate potential human risks resulting from exposure to hazardous air pollutants.

16. Source Assessments - Projects that identify and quantify emissions from specific source categories and that evaluate applicable control technologies.

17. Source Sampling - Projects that develop source sampling methodologies or that include sampling specific sources of hazardous air pollutants.

18. Toxicity Testing - Animal toxicity testing studies that assess adverse health effects associated with exposure to one or more chemicals.

The following EPA offices were contacted for lists of projects within these 18 categories:

- Office of Air and Radiation,
- Office of Pesticides and Toxic Substances,
- Office of Solid Waste and Emergency Response,
- Office of Research and Development, and
- Regional Offices for all 10 EPA Regions.

The National Institute for Occupational Safety and Health and the Agency for Toxic Substances and Disease Registry under the Department of Health and Human Services were also contacted. In selecting projects from these lists, emphasis was placed on projects dealing with toxic air pollutants which belong to the categories listed above. State and local agencies submit their project lists directly to the Clearinghouse as a part of the Clearinghouse's annual information request.

The EPA's Office of Drinking Water projects have been listed in the Appendix. While not specifically air related, health information on toxic pollutants resulting from ODW projects may be helpful to Clearinghouse users.

USING THIS DOCUMENT

This document has been divided into two parts and an appendix. Part 1 contains individual entries for 379 ongoing research and regulatory

development projects. The EPA, NIOSH, and ATSDR projects appear first, followed by State and local agency projects. Project entries are numbered sequentially throughout Part 1, beginning with the prefix CL-BIB or with the two-letter postal code abbreviation for the State for State/local agency projects. Breaks in numerical sequence indicate the removal of previous entries after completion of the specific project. Each entry generally contains the following elements:

- Project Title,
- Status of Project,
- Contact Office, Name, and Telephone Number,
- Chemical Abstract Services (CAS) Registry Number,
- Chemical Name,
- Air Pollution Source,
- Project Type, and
- Project Description.

The Status of Project field contains the start date and anticipated completion date, if known. Any proposed publication information, if appropriate, is also included. Since most NIOSH projects are long-term projects, journal articles on various phases of a project may be published before the overall project completion date shown in the entry. In the case of emission standards projects (NESHAP and NSPS), the entry indicates whether the standard is currently in the proposal or promulgation stage.

The next element in each project entry lists the office doing the work and the name and telephone number of the Project Officer or other knowledgeable contact. Abbreviations used for the offices and the telephone number for each office are included in Table 1.

The CAS number, chemical name, and source fields may not be applicable to all entries. For example, projects that deal with groups of chemicals such as "organic compounds" or "heavy metals" rather than specific pollutants cannot be assigned CAS numbers. Several special Clearinghouse acronyms prefaced with "CL- " have been assigned to groups of common pollutant types where no CAS number was applicable. The list of Clearinghouse chemical acronyms is shown in Table 2. In some projects

TABLE 1. KEY TO ABBREVIATIONS USED IN THIS DOCUMENT

Abbreviation			Name	Telephone
Office	Division	Branch		
1. Environmental Protection Agency (EPA) Offices				
a. Office of Air and Radiation (OAR)				(202) 382-7400 (FTS) 382-7400
OAQPS/			Office of Air Quality, Planning and Standards	(919) 541-5615 (FTS) 629-5615
	ESD/		Emission Standards Division	(919) 541-5572 (FTS) 629-5572
		SDB	Standards Development Branch	(919) 541-5579 (FTS) 629-5579
		PAB	Pollutant Assessment Branch	(919) 541-5647 (FTS) 629-5647
		ISB	Industrial Studies Branch	(919) 541-5596 (FTS) 629-5596
		CPB	Chemicals and Petroleum Branch	(919) 541-5674 (FTS) 629-5674
		CTC	Control Technology Center	(919) 541-0800 (FTS) 629-0800
	TSD/		Technical Services Division	(919) 541-5536 (FTS) 629-5536
		MRB	Monitoring and Reports Branch	(919) 541-5559 (FTS) 629-5559
		SRAB	Source Receptor Analysis Branch	(919) 541-5561 (FTS) 629-5561
		EMB	Emissions Measurement Branch	(919) 541-5544 (FTS) 629-5544
	AQMD/		Air Quality Management Division	(919) 541-5621 (FTS) 629-5621
		NPPB	Noncriteria Pollutant Programs Branch	(919) 541-5586 (FTS) 629-5586

TABLE 1. KEY TO ABBREVIATIONS USED IN THIS DOCUMENT (Continued)

Abbreviation			Name	Telephone
Office	Division	Branch		
	SSCD/		Stationary Source Compliance Division	(202) 382-2807 (FTS) 382-2807
		TSB	Technical Support Branch	(919) 541-5594 (FTS) 629-5594
ORP/			Office of Radiation Programs	(202) 475-9600 (FTS) 475-9600
	CSD/		Criteria and Standards Division	(202) 475-9605 (FTS) 475-9605
		ESB	Environmental Standards Branch	(202) 475-9610 (FTS) 475-9610
OPD/			Office of Program Development	(202) 382-7407 (FTS) 382-7407
OMS/			Office of Mobile Sources	(202) 382-7645 (FTS) 382-7645
OAIAP/			Office of Atmospheric and Indoor Air Programs	(202) 382-7407 (FTS) 382-7407
	GCD/		Global Change Division	(202) 382-7750 (FTS) 382-7750
	IAD/		Indoor Air Division	(202) 475-8470 (FTS) 475-8470
b. Office of Research and Development (ORD)				
OHEA/			Office of Health and Environmental Assessment	(202) 382-7317 (FTS) 382-7317
	EAG		Exposure Assessment Group	(202) 475-8909 (FTS) 475-8909
	HHAG		Human Health Assessment Group	(202) 382-5898 (FTS) 382-5898
	ECAO-RTP		Environmental Criteria and Assessment Office, Research Triangle Park, NC	(919) 541-4173 (FTS) 629-4173

TABLE 1. KEY TO ABBREVIATIONS USED IN THIS DOCUMENT (Continued)

Abbreviation			Name	Telephone
Office	Division	Branch		
	ECAO-CIN		Environmental Criteria and Assessment Office, Cincinnati, OH	(513) 569-7531 (FTS) 684-7431
OHR/			Office of Health Research	(202) 382-5900 (FTS) 382-5900
	HERL		Health Effects Research Laboratory	(919) 541-2281 (FTS) 629-2281
OEPER/			Office of Environmental Processes and Effects Research	(202) 382-5950 (FTS) 382-5950
	Kerr ERL-OK		Kerr Environmental Research Laboratory, Oklahoma	(405) 332-2224 (FTS) 743-2224
OEETD/			Office of Environmental Engineering and Technology Demonstration	(202) 382-2600 (FTS) 382-2600
	AEERL/		Air and Energy Engineering Research Laboratory	(919) 541-2822 (FTS) 629-2822
	CIAD/		Combustion and Indoor Air Division	(919) 541-2746 (FTS) 629-2746
		CRB	Combustion Research Branch	(919) 541-2477 (FTS) 629-2477
		IAB	Indoor Air Branch	(919) 541-2746 (FTS) 629-2746
	ATRD/		Air Toxics Research Division	(919) 541-4134 (FTS) 629-4134
		ATCB	Air Toxics Control Branch	(919) 541-2818 (FTS) 629-2818
		IPB	Industrial Processes Branch	(919) 541-2853 (FTS) 629-2853

TABLE 1. KEY TO ABBREVIATIONS USED IN THIS DOCUMENT (Continued)

Abbreviation			Name	Telephone
Office	Division	Branch		
	RREL/		Risk Reduction Engineering Laboratory	(513) 684-7896 (FTS) 684-7896
OMMSQA/			Office of Modeling, Monitoring Systems and Quality Assurance	(202) 382-5767 (FTS) 382-5767
	AREAL/		Atmospheric Research and Exposure Assessment Laboratory	(919) 541-2106 (FTS) 629-2106
	MAD		Monitoring and Assessment Division	(919) 541-2346 (FTS) 629-2346
	MDAD		Methods Development and Analysis Division	(919) 541-2454 (FTS) 629-2454
	CPCD		Chemical Processes and Characterization Division	(919) 541-2194 (FTS) 629-2194
	ASMD		Atmospheric Sciences Modeling Division	(919) 541-4542 (FTS) 629-4542
c. Office of Pesticides and Toxic Substances (OPTS)				(202) 382-2902 (FTS) 382-2902
OTS/			Office of Toxic Substances	(202) 382-3813 (FTS) 382-3813
	ECAD/		Existing Chemicals Assessment Division	(202) 382-3443 (FTS) 382-3443
		CSB	Chemical Screening Branch	(202) 382-3436 (FTS) 382-3436
		RAB	Risk Analysis Branch	(202) 382-3832 (FTS) 382-3832
OPP/			Office of Pesticide Programs	(202) 557-7090 (FTS) 557-7090
	RD/		Registration Division	(202) 557-7760 (FTS) 557-7760

TABLE 1. KEY TO ABBREVIATIONS USED IN THIS DOCUMENT (Continued)

Abbreviation			Name	Telephone
Office	Division	Branch		
	HED/		Hazard Evaluation Division	(703) 557-7695 (FTS) 557-7695
		EAB	Exposure Assessment Branch	(703) 557-3935 (FTS) 557-3935
d. Office of Solid Waste and Emergency Response (OSWER)				(202) 382-4610 (FTS) 382-4610
OSW/			Office of Solid Waste	(202) 382-4627 (FTS) 382-4627
	WMD/		Waste Management Division	(202) 475-7276 (FTS) 475-7276
OERR/			Office of Emergency and Remedial Response	(202) 382-2180 (FTS) 382-2180
	HSCD/		Hazardous Site Control Division	(202) 382-2180 (FTS) 382-2180
	ERD/		Emergency Response Division	(202) 382-8720 (FTS) 382-8720
CEPP/			Chemical and Emergency Preparedness Program	(202) 475-8600 (FTS) 475-8600
e. Office of Water (OW)				(202) 382-5700 (FTS) 382-5700
ODW/			Office of Drinking Water	(202) 382-5543 (FTS) 382-5543
EPA Regional Offices				
	Reg. I		Region I, Air Management Division, Boston, MA	(617) 565-3236 (FTS) 835-3236
	Reg. II		Region II, Air and Waste Management Division, New York, NY	(212) 264-2301 (FTS) 264-2301
	Reg. III		Region III, Air Management Division, Philadelphia, PA	(215) 597-9390 (FTS) 597-9390

TABLE 1. KEY TO ABBREVIATIONS USED IN THIS DOCUMENT (Continued)

Abbreviation			Name	Telephone
Office	Division	Branch		
	Reg. IV		Region IV, Air, Pesticides, and Toxics Management Division, Atlanta, GA	(404) 347-3043 (FTS) 257-3043
	Reg. V		Region V, Air and Radiation Management Division, Chicago, IL	(312) 353-2212 (FTS) 353-2212
	Reg. VI		Region VI, Air, Pesticides, and Toxics Management Division, Dallas, TX	(214) 655-7200 (FTS) 255-7200
	Reg. VII		Region VII, Air and Toxics Division, Kansas City, KS	(913) 236-2893 (FTS) 757-2893
	Reg. VIII		Region VIII, Air and Toxics Division, Denver, CO	(303) 293-1438 (FTS) 564-1438
	Reg. IX		Region IX, Air Management Division, San Francisco, CA	(415) 974-8201 (FTS) 454-8201
	Reg. X		Region X, Air and Toxics Division, Seattle, WA	(206) 442-4762 (FTS) 399-4762
2. National Institute for Occupational Safety and Health (NIOSH)				
OPPE/			Office of Program Planning and Evaluation	(404) 639-3794 (FTS) 236-3794
	DBBS/		Division of Biomedical and Behavioral Sciences, Cincinnati, OH	(513) 533-8465 (FTS) 684-8465
		ABPB	Applied Biology and Physics Branch	(513) 533-8383 (FTS) 684-8383
		APEB	Applied Physiology and Ergonomics Branch	(513) 533-8383 (FTS) 684-8383

TABLE 1. KEY TO ABBREVIATIONS USED IN THIS DOCUMENT (Continued)

Abbreviation				
Office	Division	Branch	Name	Telephone
		ETB	Experimental Toxicology Branch	(513) 533-8392 (FTS) 684-8392
		TSB	Technical Support Branch	(513) 533-8433 (FTS) 684-8433
	DRDS/		Division of Respiratory Disease Studies, Morgantown, WV	(304) 291-4474 (FTS) 923-4474
		LIB	Laboratory Investigations Branch	(304) 291-4281 (FTS) 923-4281
		CIB	Clinical Investigations Branch	(304) 291-4223 (FTS) 923-4223
		ENIB	Environmental Investigations Branch	(304) 291-4304 (FTS) 923-4304
		EPIB	Epidemiology Investigations Branch	(304) 291-4476 (FTS) 923-4476
	DSHEFS/		Division of Surveillance, Hazard Evaluations, and Field Studies, Cincinnati, OH	(513) 841-8235 (FTS) 684-8235
		IWSB	Industry Wide Studies Branch	(513) 841-4366 (FTS) 684-4366
		SB	Surveillance Branch	(513) 841-4303 (FTS) 684-4303

TABLE 2. CLEARINGHOUSE CHEMICAL IDENTIFIERS

Clearinghouse CAS #	Pollutant
CL-ABRAS	Abrasives
CL-ACID	Acidic compounds
CL-ADIP	Adipates
CL-ALDEHYD	Aldehydes
CL-ALKYLPB	Alkyl lead compounds
CL-ALLERG	Allergens
CL-ALMERC	Alkyl mercury compounds
CL-ALUM	Aluminum compounds
CL-AMINE	Amines
CL-BACT	Bacteria
CL-BROM	Bromine compounds
CL-BTX	Benzene, toluene, xylene
CL-CARBON	Total carbon
CL-CARCIN	Carcinogens
CL-CFC	Chlorofluorocarbons
CL-CHC	Chlorinated hydrocarbons
CL-CHLOR	Chlorine compounds
CL-CHROME	Chromium compounds
CL-COE	Coke oven emissions
CL-COPPER	Copper compounds
CL-COTDUST	Cotton dust
CL-CREOSOL	Creosols
CL-CUTFLU	Cutting fluids
CL-DGAEA	Diethylene gycol alkyl ethers and acetates
CL-DIESEL	Diesel fuel emissions
CL-DIISOCY	Diisocyanates
CL-DIOXIN	Dioxins
CL-DYE	Dyes
CL-ETS	Environmental tobacco smoke
CL-EXPLO	Explosives
CL-FUELOIL	Waste derived fuel oil emissions
CL-FUNG	Fungicides
CL-FURAN	Furans
CL-GLASS	Fibrous glass dust
CL-HALOME	Halomethanes
CL-HAZWAST	Hazardous wastes
CL-HCARB	Hydrocarbons
CL-HERB	Herbicides
CL-HEXANE	Hexane isomers
CL-IAP	Indoor air pollutants
CL-INMERC	Aryl and inorganic mercury compounds
CL-INORGAN	Inorganic compounds
CL-INOTIN	Inorganic tin and oxide compounds
CL-INSMOLY	Insoluble molybdenum compounds

TABLE 2. CLEARINGHOUSE CHEMICAL IDENTIFIERS (Continued)

Clearinghouse CAS #	Pollutant
CL-INSRHOD	Insoluble rhodium compounds
CL-INSTUNG	Insoluble tungsten compounds
CL-IRON	Iron compounds
CL-MANG	Manganese compounds
CL-MAPP	Methyl acetylene-propadiene mixture
CL-METAL	Metallic compounds
CL-METOXBZ	Methoxybenzene compounds
CL-MINDUST	Mineral dusts
CL-MINFIB	Mineral fibers
CL-MOM	Mineral oil mist
CL-MS	Mineral spirits
CL-NICKEL	Nickel compounds
CL-NITRATE	Nitrates
CL-NITRITE	Nitrites
CL-NITROSO	Nitroso compounds
CL-NMHC	Non-methane hydrocarbons
CL-ODOR	Odors
CL-OH	Hydroxides
CL-ORGANIC	Organic compounds
CL-PAH	Polycyclic aromatic hydrocarbons
CL-PCO	Photochemical oxidants
CL-PEST	Pesticides
CL-PHARM	Pharmaceuticals
CL-PHENOL	Phenols
CL-PHOSPHA	Phosphates
CL-PHTH	Phthalates
CL-PLAS	Plasticizers
CL-PLAT	Platinum compounds
CL-PM	Particulate matter
CL-POM	Polycyclic organic matter
CL-PYRO	Pyro powders
CL-RAD	Radiation
CL-RCSPP	Rosin core solder pyrolysis products
CL-RESIN	Resins
CL-ROSIN	Rosin vapors
CL-RUBSOL	Rubber solvents
CL-SALTS	Salts
CL-SEWSLUD	Sewage sludge
CL-SILVER	Silver compounds
CL-SOLMOLY	Soluble molybdenum compounds
CL-SOLRHOD	Soluble rhodium compounds
CL-SOLTUNG	Soluble tungsten compounds
CL-SOLVENT	Solvents
CL-SULFATE	Sulfates

TABLE 2. CLEARINGHOUSE CHEMICAL IDENTIFIERS (Continued)

Clearinghouse CAS #	Pollutant
CL-SULFIDE	Sulfides
CL-SULFITE	Sulfites
CL-SVOC	Semivolatile organic compounds
CL-TIN	Organic tin compounds
CL-TRS	Total reduced sulfur
CL-VARIOUS	Various pollutants
CL-VEG	Vegetable oil mist
CL-VOC	Volatile organic compounds
CL-WELD	Welding fumes
CL-WOOD	Wood smoke

dealing with specific source categories, lists of chemicals emitted are not yet available, so "various" has been used under Chemical Name. Other chemical-specific projects may not deal with specific air pollution sources. In these cases, the air pollution source field of the entry has been omitted. Wherever possible, an effort has been made to list the specific chemical name(s), CAS registry number(s), and/or source type(s) for each project. Figure 1 gives an example of a typical entry.

If a project clearly falls into 1 of the 18 categories listed above, only that one project type is listed in the entry. However, there is often overlap between the kinds of information included in these categories, therefore, more than one is selected based on the project title and description.

The final element provides a brief description of the project. It has been limited to seven lines; therefore, it is somewhat general in nature.

Part 2 of the document consists of the index. This is organized both alphabetically and numerically. Each project is indexed by project type, CAS number, chemical name, SIC Code and the corresponding SIC Code title, and the agency conducting the work. These indices allow users to locate projects pertaining to a specific chemical, source, or type of information. For example, if information is desired on a specific chemical, it can be obtained by looking up the chemical name in the index or by looking up the CAS Number for that chemical. Under the chemical name are a list of titles and project numbers (e.g., CL-BIB-0193 or CA001 010). Using this project number, one can look up the projects of interest in Part 1 of this document. Similarly this process can be done for various source types for which there are SIC Codes. For example, if information on projects related to steel or the chemical industry was desired, a listing could be found alphabetically and numerically in the index under each of these categories and their respective SIC Codes. If an entry contains more than one project type, it is listed in the index under each applicable project type. Only those chemical names, CAS numbers, and sources with SIC Codes used in the 18 project descriptions are found in the index. A table of contents to the index is found at the beginning of Part 2. This lists all terms found in the index and the index page number where the term and associated projects are listed.

FIGURE 1. SAMPLE ENTRY

CL-BIB-0257

TITLE:	Engineering Study: Standards Development for Hazardous Waste Treatment, Storage, and Disposal Facilities
STATUS:	Started 10/79; complete 2/99
CONTACT:	OAQPS/ESD/CPB, Kent Hustvedt (919) 541-5395
CAS NUMBER:	CL-HAZWAST, 75-07-0, CL-VOC, 75-44-5, 7440-43-9
CHEMICAL:	Hazardous waste, acetaldehyde, volatile organic compounds, phosgene, cadmium
SOURCE TYPE:	Hazardous Waste Treatment, Storage, and Disposal Facilities
PROJECT TYPE:	Pre-regulatory Development, NESHAP Development, Emission Factor, Control Technology
DESCRIPTION:	The purpose of this project is to analyze the effects of organic air emissions from (RCRA) permitted hazardous waste treatment, storage, and disposal facilities. Regulatory options will be studied and standards proposed.

Regulatory development projects underway at the EPA Office of Drinking Water are summarized in the Appendix. While these projects are not specifically air related, Clearinghouse users may find toxic chemical information generated by ODW useful. For example, background documents for setting Maximum Contaminant Levels under the Safe Drinking Water Act contain health information on toxic chemicals and many chemicals being studied by ODW are also potential air pollutants. The Appendix contains a brief description of ODW regulatory development activities and lists of chemicals currently under study.

Information in this report is also available through the National Air Toxics Information Clearinghouse computerized data base known as NATICH. By accessing the data base on-line, the user may identify ongoing project citations by a combination of factors such as pollutant name or CAS number, SIC Code, project type, and/or sponsoring agency (EPA, NIOSH, ATSDR, or State/local agency). For more information on accessing NATICH, contact the Clearinghouse staff at (919) 541-0850 or (FTS) 629-0850.

PART 1 - PROJECT SUMMARIES

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CL-BIB-0012

TITLE: Coke Oven Emissions: Charging, Topside Leaks, Door Leaks NESHAP
STATUS: Re-proposal FY 89
CONTACT: OAQPS/ESD/SDB, Amanda Aldridge (919) 541-5268
CAS NO: CL-COE
CHEMICAL: COKE OVEN EMISSIONS
SOURCE: Coke Ovens, Wet-Coal Charged
PROJECT TYPE: NESHAP
DESCRIPTION: VOCs and other hazardous air pollutants are being studied as a whole set from coke oven emissions. The set of pollutants has been listed under Section 112 of the Clean Air Act. The project will also investigate the aspects of emission reduction.

CL-BIB-0018

TITLE: Asbestos NESHAP Revision
STATUS: Ongoing
CONTACT: OAQPS/ESD/PAB, Brenda Riddle (919) 541-5341
CAS NO: 1332-21-4
CHEMICAL: ASBESTOS
SOURCE: Construction Industry, Demolition
PROJECT TYPE: NESHAP
DESCRIPTION: Current NESHAP for asbestos was reviewed and found to be generally acceptable for protecting public health. The wording of certain sections is being revised to increase enforceability. Many of the revisions were proposed in an accelerated revision 54 FR 912, January 10, 1989. Additional revisions are to be made pending adoption of Clean Air Amendments or resolution of the Vinyl Chloride decision.

CL-BIB-0029

TITLE: Estimating Exposure to Arsenic, Beryllium, Cadmium, Chromium, and Nickel From Coal and Oil Combustion
STATUS: Ongoing
CONTACT: OAQPS/ESD/PAB, Warren Peters (919) 541-5337
CAS NO: 7440-38-2, 7440-41-7, 7440-43-9, 7440-47-3, 7440-02-0, CL-METAL
CHEMICAL: ARSENIC, BERYLLIUM, CADMIUM, CHROMIUM, NICKEL, METALLIC COMPOUNDS
SOURCE: Combustion
PROJECT TYPE: Exposure Assessment, Risk Assessment
DESCRIPTION: Public exposure and risks resulting from emissions of arsenic, beryllium, cadmium, chromium, and nickel from coal and oil combustion sources will be estimated.

CL-BIB-0034

TITLE: Decision on Regulation of Acetaldehyde Under the Clean Air Act
STATUS: On hold
CONTACT: OAQPS/ESD/PAB, Scott Voorhees (919) 541-5348
CAS NO: 75-07-0
CHEMICAL: ACETALDEHYDE
PROJECT TYPE: Pre-Regulatory Assessment, Risk Assessment
DESCRIPTION: The EPA will use available source and health information to estimate potential public exposure and risks resulting from non-accidental air emissions of acetaldehyde from stationary sources. This analysis will be used to decide whether or not to conduct further analysis of acetaldehyde as a toxic air pollutant under the Clean Air Act to determine if Federal regulation is warranted. This project is on hold while PAB undergoes transition from a single pollutant approach to a multipollutant source category approach.

CL-BIB-0035

TITLE: Decision on Regulation of Acrolein Under the Clean Air Act
STATUS: Ongoing
CONTACT: OAQPS/ESD/PAB, Brenda Riddle (919) 541-5341
CAS NO: 107-02-8
CHEMICAL: ACROLEIN
PROJECT TYPE: Regulatory Development Guidance, Source Assessment
DESCRIPTION: This analysis identified two facilities with concentrations approaching or exceeding the TLV and STEL. Due to the limited number of facilities, EPA granted promoted State initiatives rather than initiating a Federal regulation. A promoted initiative will allow the State to evaluate and/or regulate the facility.

CL-BIB-0036

TITLE: Decision on Regulation of Ammonia Under the Clean Air Act
STATUS: On hold
CONTACT: OAQPS/ESD/PAB, Mike Dusetzina (919) 541-5338
CAS NO: 7664-41-7
CHEMICAL: AMMONIA
PROJECT TYPE: Pre-Regulatory Assessment
DESCRIPTION: The EPA will use available source and health information to estimate potential public exposure and risks resulting from non-accidental air emissions of ammonia from stationary sources. This analysis will be used to decide whether or not to conduct further analysis of ammonia as a toxic air pollutant under the Clean Air Act to determine if Federal regulation is warranted. This project is on hold while PAB undergoes transition from a single pollutant approach to a multipollutant source category approach.

CL-BIB-0037

TITLE: Decision on Regulation of Chlorine and Hydrochloric Acid Under the Clean Air Act
STATUS: On hold
CONTACT: OAQPS/ESD/PAB, Tim Mohin (919) 541-5349
CAS NO: 7782-50-5, 7647-01-0
CHEMICAL: CHLORINE, HYDROCHLORIC ACID
PROJECT TYPE: Pre-Regulatory Assessment
DESCRIPTION: The EPA will use available source and health information to estimate potential public exposure and risks resulting from non-accidental air emissions of chlorine and hydrochloric acid from stationary sources. This analysis will be used to decide whether or not to conduct further analysis of chlorine and hydrochloric acid as a toxic air pollutant under the Clean Air Act to determine if Federal regulation is warranted. This project is on hold while PAB undergoes transition from a single pollutant approach to a multipollutant source category approach.

CL-BIB-0041

TITLE: Decision on Regulation of Gasoline Vapors Under the Clean Air Act
STATUS: Ongoing
CONTACT: OAQPS/ESD/PAB, Fred Hauchman (919) 541-5339
CAS NO: 8006-61-9
CHEMICAL: GASOLINE VAPORS
PROJECT TYPE: Pre-Regulatory Assessment
DESCRIPTION: The EPA will use available source and health information to estimate potential public exposure and risks resulting from non-accidental air emissions of gasoline vapors from stationary sources. This analysis will be used to decide whether or not to conduct further analysis of gasoline vapors as a toxic air pollutant under the Clean Air Act to determine if Federal regulation is warranted.

CL-BIB-0042

TITLE: Decision on Regulation of Hydrogen Sulfide Under the Clean Air Act
STATUS: On hold
CONTACT: OAQPS/ESD/PAB, Scott Voorhees (919) 541-5348
CAS NO: 7783-06-4
CHEMICAL: HYDROGEN SULFIDE
PROJECT TYPE: Pre-Regulatory Assessment
DESCRIPTION: The EPA will use available source and health information to estimate potential public exposure and risks resulting from non-accidental air emissions of hydrogen sulfide from stationary sources. This analysis will be used to decide whether or not to conduct further analysis of hydrogen sulfide as a toxic air pollutant under the Clean Air Act to determine if Federal regulation is warranted. This project is on hold while PAB undergoes transition from a single pollutant approach to a multipollutant source category approach.

CL-BIB-0043

TITLE: Decision on Regulation of Mineral Fibers Under the Clean Air Act
STATUS: Ongoing
CONTACT: OAQPS/ESD/PAB, Brenda Riddle (919) 541-5341
CAS NO: CL-MINFIB
CHEMICAL: MINERAL FIBERS
PROJECT TYPE: Pre-Regulatory Assessment
DESCRIPTION: The EPA is using available source and health information to estimate potential public exposure and risks resulting from non-accidental air emissions of mineral fibers from stationary sources. This analysis will be used to decide whether or not to conduct further analysis of mineral fibers as a toxic air pollutants under the Clean Air Act to determine if Federal regulation is warranted. Preliminary results indicate further analysis of some types of fiber is necessary to assess potential health risks while other types of fibers do not warrant regulation due to little or negative carcinogenicity data.

CL-BIB-0046

TITLE: Decision on Regulation of Phosgene Under the Clean Air Act
STATUS: Ongoing
CONTACT: OAQPS/ESD/PAB, Dan Guth (919) 541-5340
CAS NO: 75-44-5
CHEMICAL: PHOSGENE
PROJECT TYPE: Pre-Regulatory Assessment
DESCRIPTION: The EPA will use available source and health information to estimate potential public exposure and risks resulting from non-accidental air emissions of phosgene from stationary sources. This analysis will be used to decide whether or not to conduct further analysis of phosgene as a toxic air pollutant under the Clean Air Act to determine if Federal regulation is warranted.

CL-BIB-0048

TITLE: Decision on Regulation of Propylene Oxide Under the Clean Air Act
STATUS: On hold
CONTACT: OAQPS/ESD/PAB, Nancy Pate (919) 541-5347
CAS NO: 75-56-9
CHEMICAL: PROPYLENE OXIDE
PROJECT TYPE: Pre-Regulatory Assessment
DESCRIPTION: The EPA will use available source and health information to estimate potential public exposure and risks resulting from non-accidental air emissions of propylene oxide from stationary sources. This analysis will be used to decide whether or not to conduct further analysis of propylene oxide as a toxic air pollutant under the Clean Air Act to determine if Federal regulation is warranted. This project is on hold while PAB undergoes transition from a single pollutant approach to a multipollutant source category approach.

CL-BIB-0050

TITLE: Decision on Regulation of Air Emissions from Isocyanate Production Facilities
STATUS: On hold
CONTACT: OAQPS/ESD/PAB, Melissa McCullough (919) 541-5646
CAS NO: 584-84-9, 624-83-9, 95-80-7, 106-46-7, 75-44-5, 7647-01-0, 121-14-2
CHEMICAL: TOLUENE DIISOCYANATE, METHYL ISOCYANATE, TOLUENE DIAMINE, p-DICHLOROBENZENE, PHOSGENE, HYDROCHLORIC ACID, DINITROTOLUENE
PROJECT TYPE: Pre-Regulatory Assessment
DESCRIPTION: The EPA is collecting source and health information on air pollutants emitted from facilities producing toluene diisocyanate, methyl isocyanate, methyl bisphenyl diisocyanate, and other isocyanates. This information will be used to assess potential public risks resulting from exposure to multiple pollutants emitted from the same facility and to determine if Federal regulation of these sources is warranted. This project is on hold while PAB undergoes transition from a single pollutant approach to a multipollutant source category approach.

CL-BIB-0052

TITLE: Decision on Regulation of Xylene Under the Clean Air Act
STATUS: On hold
CONTACT: OAQPS/ESD/PAB, Fred Hauchman (919) 541-5339
CAS NO: 1330-20-7
CHEMICAL: XYLENE
PROJECT TYPE: Pre-Regulatory Assessment
DESCRIPTION: The EPA will use available source and health information to estimate potential public exposure and risks resulting from non-accidental air emissions of xylene from stationary sources. This analysis will be used to decide whether or not to conduct further analysis of xylene as a toxic air pollutant under the Clean Air Act to determine if Federal regulation is warranted. This project is on hold while PAB undergoes transition from a single pollutant approach to a multipollutant source category approach.

CL-BIB-0055

TITLE: Potential for Air Releases From CERCLA Sites
STATUS: Started 7/85; ongoing
CONTACT: OSWER/OERR/HSED, Steve Caldwell (202) 475-8103
CAS NO: CL-HAZWAST
CHEMICAL: HAZARDOUS WASTES
SOURCE: Hazardous Waste Facilities, Spills, Etc.
PROJECT TYPE: Source Assessment
DESCRIPTION: This ongoing program is determining the potential for hazardous air releases from CERCLA cleanup sites.

CL-BIB-0059

TITLE: Health Assessment Document for Acrolein
STATUS: Complete; final report due FY 89
CONTACT: OHEA/ECAO-RTP, William Ewald (919) 541-4164
CAS NO: 107-02-8
CHEMICAL: ACROLEIN
PROJECT TYPE: Health Assessment
DESCRIPTION: This document is one of a series of health assessment documents (HADs). It is a comprehensive assessment of the known health data, including carcinogenicity, mutagenicity, teratogenicity, and reproductive effects from all exposure routes on acrolein. The HADs serve as the scientific database for potential health effects and are used by the OAQPS to determine the possible listing of hazardous air pollutants under Sections 111 and 112 of the Clean Air Act. The HAD report number will be EPA-600/8-86-014F.

CL-BIB-0061

TITLE: Health Assessment Document for Acetaldehyde
STATUS: Complete; final report due FY 89
CONTACT: OHEA/ECAO-RTP, William Ewald (919) 541-4164
CAS NO: 75-07-0
CHEMICAL: ACETALDEHYDE
PROJECT TYPE: Health Assessment
DESCRIPTION: This document is one of a series of health assessment documents (HADs). It is a comprehensive assessment of the known health data, including carcinogenicity, mutagenicity, teratogenicity, and reproductive effects, from all exposure routes on acetaldehyde. The HADs serve as the scientific data base for potential health effects and are used by the OAQPS to determine the possible listing of hazardous air pollutants under Sections 111 and 112 of the Clean Air Act. The HAD report number will be EPA-600/8-86-015F.

CL-BIB-0062

TITLE: Health Assessment Document for Hydrogen Sulfide
STATUS: Complete; final report due FY 89
CONTACT: OHEA/ECAO-RTP, Harriet Ammann (919) 541-4930
CAS NO: 7783-06-4
CHEMICAL: HYDROGEN SULFIDE
PROJECT TYPE: Health Assessment
DESCRIPTION: This document is one of a series of health assessment documents (HADs). It is a comprehensive assessment of the known health data, including carcinogenicity, mutagenicity, teratogenicity, and reproductive effects, from all exposure routes on hydrogen sulfide. The HADs serve as the scientific database for potential health effects and are used by the OAQPS to determine the possible listing of hazardous air pollutants under Sections 111 and 112 of the Clean Air Act. The HAD report number will be EPA-600/8-86-026F.

CL-BIB-0063

TITLE: Health Assessment Document for Phosgene
STATUS: Complete; final report due FY 89
CONTACT: OHEA/ECAO-RTP, Beverly Comfort (919) 541-4165
CAS NO: 75-44-5
CHEMICAL: PHOSGENE
PROJECT TYPE: Health Assessment
DESCRIPTION: This document is one of a series of health assessment documents (HADs). It is a comprehensive assessment of the known health data, including carcinogenicity, mutagenicity, teratogenicity, and reproductive effects, from all exposure routes on phosgene. The HADs serve as the scientific database for potential health effects and are used by the OAQPS to determine the possible listing of hazardous air pollutants under Sections 111 and 112 of the Clean Air Act. The HAD report number will be EPA-600/8-86-022F.

CL-BIB-0064

TITLE: Health Assessment Document for Polychlorinated Dibenzofurans
STATUS: Ongoing
CONTACT: OHEA/ECAO-CIN, Debdas Mukerjee (513) 569-7572
CAS NO: 132-64-9
CHEMICAL: DIBENZOFURANS
PROJECT TYPE: Health Assessment
DESCRIPTION: This document is one of a series of health assessment documents (HADs). It is a comprehensive assessment of the known health data, including carcinogenicity, mutagenicity, teratogenicity, and reproductive effects, from all exposure routes on dibenzofurans. The HADs serve as the scientific data base for potential health effects and are used by the OAQPS to determine the possible listing of hazardous air pollutants under Sections 111 and 112 of the Clean Air Act.

CL-BIB-0075

TITLE: Risk Analysis of Existing Data on Triethyl Phosphate
STATUS: Ongoing
CONTACT: OTS/ECAD/RAB, Larry Rosenstein (202) 382-3832
CAS NO: 78-40-0, 107-49-3
CHEMICAL: TRIETHYL PHOSPHATE, TETRAETHYL PYROPHOSPHATE (TEPP)
PROJECT TYPE: Risk Assessment
DESCRIPTION: Triethyl phosphate (TEP) is primarily used as an additive to polymeric resins to reduce viscosity, a flame retardant in polyester resins, and an ingredient in the production of tetraethyl pyrophosphate. TEP is being studied to assess the risks to humans. High levels of TEP can cause teratogenic effects in rats, but these levels would not be encountered in the workplace or by consumers using products containing TEP.

CL-BIB-0076

TITLE: Data Gathering and Risk Analysis of Existing Data on Dimethoxyethyl Phthalate and Other Phthalate Esters
STATUS: Ongoing
CONTACT: OTS/ECAD/RAB, Larry Rosenstein (202) 382-3832
CAS NO: 117-82-8, CL-PHTH
CHEMICAL: DIMETHOXYETHYL PHTHALATE
PROJECT TYPE: Risk Assessment
DESCRIPTION: This chemical category was originally recommended by The Interagency Testing Committee for Environmental Effects Testing. However, a NTP bioassay indicated carcinogenic activity by di-2-ethylhexyl phthalate (DEHP), turning the focus to both health and environmental effects. Other authorities, apart from TSCA, are also interested in these esters. CMA has conducted tiered environmental and cancer-related (peroxisome induction studies) testing on certain esters, and has expressed interest in a rational, comprehensive regulatory treatment of the class. A toxicological profile, mandated by Section 110 of SARA, on DEHP has been completed and is now in the comment phase. The document is being produced in cooperation with ATSDR.

CL-BIB-0077

TITLE: Information Gathering and Risk Analysis of Existing Data on Phenylethanol and Phenylethanol Acetate
STATUS: Ongoing
CONTACT: OTS/ECAD/RAB, Larry Rosenstein (202) 382-3832
CAS NO: 60-12-8, 103-45-7
CHEMICAL: PHENYLETHANOL, PHENYLETHANOL ACETATE
PROJECT TYPE: Risk Assessment
DESCRIPTION: These chemicals are used interchangeably to produce fragrance materials in many consumer products and as flavor additives in many foods. They have been shown to be teratogenic in rats. Production volume is high and there is potential exposure to a large worker population during manufacture. These chemicals are being studied to assess the risks to humans.

CL-BIB-0079

TITLE: Risk Analysis of Existing Data on Phthalimide
STATUS: Ongoing
CONTACT: OTS/ECAD/RAB, Larry Rosenstein (202) 382-3832
CAS NO: 85-41-6
CHEMICAL: PHTHALIMIDE
PROJECT TYPE: Risk Assessment
DESCRIPTION: The chemical is used as an intermediate in the manufacture of dyes, pesticides, pigments, fungicides, and as laboratory reagents. Test data are being studied and have indicated that phthalimide may have developmental effects.

CL-BIB-0103

TITLE: Atmospheric Measurements of Trace Hazardous Organic Chemicals
STATUS: Ongoing; report due 11/89
CONTACT: AREAL/CPCD, Larry Cupitt (919) 541-2878
CAS NO: CL-ORGANIC
CHEMICAL: ORGANIC COMPOUNDS
PROJECT TYPE: Ambient Monitoring
DESCRIPTION: Ambient monitoring and analysis of hazardous organic compounds will be conducted. A work plan is in place and the sampling portion of the project has been completed. Data reduction will be completed by September 1989.

CL-BIB-0104

TITLE: Hazardous Air Pollutants in the Urban Environment
STATUS: Ongoing
CONTACT: AREAL/CPCD, Larry Cupitt (919) 541-2878
CAS NO: CL-VARIOUS, CL-PCO
CHEMICAL: VARIOUS, PHOTOCHEMICAL OXIDANTS
PROJECT TYPE: Source Sampling, Source Assessment
DESCRIPTION: A variety of urban pollution sources (automobile exhaust, for example) are studied using smog chambers. This is not a methods development project; it is a study of the photochemical changes that occur while producing mutagenic compounds. Bioassay studies are being conducted. The main purpose of this project is to identify the mutagenic compounds that are present in urban pollution sources.

CL-BIB-0108

TITLE: Determine Pulmonary Dose-Response Relationships
STATUS: Started 10/81; complete 6/89
CONTACT: OHR/HERL-RTP, Elaine Grose (919) 541-2966
CAS NO: CL-VARIOUS
CHEMICAL: HAZARDOUS AIR POLLUTANTS (PRIORITY)
PROJECT TYPE: Toxicity Testing
DESCRIPTION: The purpose of this program is to provide data on the inhalation effects of hazardous air pollutants on pulmonary, cardiovascular, and metabolic systems.

CL-BIB-0109

TITLE: Determine Neurotoxic Dose-Response Relationships
STATUS: Started 10/81; complete 9/90
CONTACT: OHR/HERL-RTP, Phillip Bushnell (919) 541-7747
CAS NO: CL-VARIOUS
CHEMICAL: HAZARDOUS AIR POLLUTANTS (PRIORITY)
PROJECT TYPE: Toxicity Testing
DESCRIPTION: The goal of this project is to provide dose- and time-effect data on the neurotoxicity of hazardous air pollutants identified to be of priority concern by OAQPS. Dose- and time-effect data are essential for OAQPS to assess accurately the neurotoxicity of hazardous air pollutants, and to make rational risk assessment and regulatory decisions under the Clean Air Act. Research to characterize the neurotoxic properties of various chemicals involves studies to determine dose- and time-effect relationships in laboratory animals and in man.

CL-BIB-0110

TITLE: Characterize Genotoxic Dose-Response Relationships
STATUS: Started 10/79; complete 9/92
CONTACT: OHR/HERL-RTP, Joellen Lewtas (919) 541-3849
CAS NO: CL-VARIOUS
CHEMICAL: HAZARDOUS AIR POLLUTANTS (PRIORITY)
PROJECT TYPE: Toxicity Testing
DESCRIPTION: Animal studies are being performed to provide dose-response-metabolism and dosimetry data on the mutagenicity and carcinogenicity of hazardous air pollutants. A series of publications will be printed.

CL-BIB-0111

TITLE: Identify and Evaluate Toxic Components of Air Pollution
STATUS: Started 10/81; complete 9/92
CONTACT: OHR/HERL-RTP, Joellen Lewtas (919) 541-3849
CAS NO: CL-VARIOUS, CL-CARCIN
CHEMICAL: HAZARDOUS AIR POLLUTANTS, CARCINOGENS
PROJECT TYPE: Toxicity Testing, Ambient Monitoring
DESCRIPTION: The purpose of this program is to develop and validate methods to identify mutagenic and potentially carcinogenic components in ambient air and source emissions.

CL-BIB-0114

TITLE: Develop Methods to Identify Reproductive Toxicity of Air Pollutants
STATUS: Started 10/84; complete 9/92
CONTACT: OHR/HERL-RTP, John Rodgers (919) 541-5177
CAS NO: CL-VARIOUS
CHEMICAL: VARIOUS
PROJECT TYPE: Ambient Monitoring, Toxicity Testing
DESCRIPTION: The purpose of this project is to develop and validate methods to identify potential teratogens and reproductive toxins in ambient air and source emissions.

CL-BIB-0141

TITLE: Field Assessment of Waste Pretreatment at Refinery Land Treatment Facilities
STATUS: Complete; report in progress
CONTACT: ORD/OEETD/RREL-CIN, Bryan Westfall (513) 569-7519
CAS NO: CL-HAZWAST
CHEMICAL: HAZARDOUS WASTES
SOURCE: Hazardous Waste Facilities
PROJECT TYPE: Source Assessment
DESCRIPTION: This field study will assess the emissions from dewatering devices used to remove water from the sludge of land-treated waste. Sample analysis will be done for VOC, semi-VOC, and some specific compounds.

CL-BIB-0147

TITLE: Analysis of Acid Precipitation Samples Collected in West Virginia, Delaware, and Maryland
STATUS: Ongoing
CONTACT: EPA Region III, Ted Erdman (215) 597-1193
CAS NO: CL-ACID
CHEMICAL: ACIDIC COMPOUNDS
PROJECT TYPE: Ambient Monitoring, Source Sampling
DESCRIPTION: Wet and dry deposition are monitored at seven locations in MD, DE, and WV (2, 2, and 3 respectively) by the States. Data are submitted to the National Acid Deposition Databank. The project is a part of the National Acid Precipitation Assessment Program (NAPAP).

CL-BIB-0157

TITLE: Contra Costa Exposure Study
STATUS: Ongoing
CONTACT: EPA Region IX, Barbara Maco (415) 974-8219
CAS NO: CL-ORGANIC, CL-METAL
CHEMICAL: VARIOUS ORGANICS, THREE METALS
PROJECT TYPE: Exposure Assessment, Ambient Monitoring, Dispersion Modeling
DESCRIPTION: The project goal is to evaluate the presence of 15-16 air toxics, three metals, the rest organics, in the Contra Costa area surrounding San Francisco. Phase I required development of an inventory, modeling and predicting air quality. This is complete and a draft report has been prepared. Phase II involves sampling three stations over one year to gather supplementary data.

CL-BIB-0161

TITLE: Particulate and Tissue Analysis Service and Research
STATUS: Started 10/76; ongoing
CONTACT: NIOSH/DBBS/ABPB, Frank Platek (513) 533-8400
CAS NO: CL-VARIOUS, CL-PM
CHEMICAL: VARIOUS, PARTICULATE MATTER
PROJECT TYPE: Toxicity Testing
DESCRIPTION: This project will provide lung particulate burden data through the analysis of human lung tissues by automated analytical electron microscopy.

CL-BIB-0162

TITLE: Evaluation of Mesothelioma Production by Asbestos Substitutes
STATUS: Started 10/84; complete 9/91
CONTACT: NIOSH/DBBS/ABPB, Frank Platek (513) 533-8400
CAS NO: 1332-21-4, 12001-29-5
CHEMICAL: ASBESTOS, ASBESTOS SUBSTITUTES, CHRYSOTILE
PROJECT TYPE: Toxicity Testing
DESCRIPTION: Industry is suggesting two modified chrysotile products as safety substitutes for asbestos. This project will assess the safety of these materials through animal testing, in which pleural implants are used to compare reactions to base fibers versus the substitutes.

CL-BIB-0169

TITLE: Methodologies for Worksite Neurotoxicity Evaluations
STATUS: Started 10/83; complete 9/89
CONTACT: NIOSH/DBBS/APEB, Kent Anger (513) 533-8383
CAS NO: CL-VARIOUS
CHEMICAL: VARIOUS
PROJECT TYPE: Toxicity Testing, Epidemiology Study
DESCRIPTION: This project provides an assessment of screening, diagnostic, and monitoring tests for behavioral/neurological dysfunction to be used in worksite research and hazard assessment.

CL-BIB-0181

TITLE: Vanadium Pentoxide - NTP Chemical Management
STATUS: Started 10/83; complete 9/90
CONTACT: NIOSH/DBBS/ETB, William Moorman (513) 533-8392
CAS NO: 1314-62-1
CHEMICAL: VANADIUM PENTOXIDE
PROJECT TYPE: Toxicity Testing
DESCRIPTION: Vanadium pentoxide was nominated to the NTP as a vanadium compound with significant potential for human exposure by NCI, OSHA, EPA, NIOSH, and MSHA. This project will provide NTP toxicological direction for acute and chronic information (organ function toxicity and cancer).

CL-BIB-0186

TITLE: Dimethylformamide - NTP Chemical Management
STATUS: Started 9/85; complete 2/92
CONTACT: NIOSH/DBBS/ETB, Robert Mason (513) 533-8202
CAS NO: 68-12-2
CHEMICAL: DIMETHYLFORMAMIDE
PROJECT TYPE: Toxicity Testing
DESCRIPTION: Dimethyformamide was nominated by NIOSH for testing by the NTP on the basis of its high bioavailability, structural similarity to other suspect carcinogens, population at risk, and production volume. This project will provide toxicologic and carcinogenic data presently available.

CL-BIB-0190

TITLE: Temporal Factors Influencing Carcinogenicity of Industrial Chemicals
STATUS: Started 10/85; complete 9/91
CONTRACT: NIOSH/DBBS/ETB, William Moorman (513) 533-8392
CAS NO: 75-21-8
CHEMICAL: ETHYLENE OXIDE
SOURCE: Chemical Industry
PROJECT TYPE: Toxicity Testing
DESCRIPTION: This project will obtain salient information on the importance of dose-rate of a suspect occupational carcinogen using a known rat carcinogen, ethylene oxide, which will be the representative chemical to study the influence of various exposure combinations of concentrations times time (C x T) on the carcinogenic potential.

CL-BIB-0195

TITLE: Effective Silica Indices of Respirable Mineral Dusts
STATUS: Started 10/84; complete 9/91
CONTACT: NIOSH/DRDS/ENIB, William Wallace (304) 291-4136
CAS NO: 7631-86-9
CHEMICAL: SILICA
PROJECT TYPE: Source Sampling
DESCRIPTION: This project will determine the significance of the factors that affect the fibrogenic potential of silica. Present correlation of exposure is based on particle count or particle mass. This project will determine the most biologically effective index property for measurement.

CL-BIB-0202

TITLE: Prospective Epidemiologic Industrial Hygiene Study of Mild Steel Welders
STATUS: Started 10/85; complete 9/90
CONTACT: NIOSH/DRDS/EPIB, John Gamble (304) 291-4476
CAS NO: 1332-37-2, 1309-37-1, CL-WELD
CHEMICAL: IRON OXIDE, IRON OXIDE FUME, WELDING FUMES
SOURCE: Welding, Steel Industry
PROJECT TYPE: Epidemiology Study
DESCRIPTION: The welding study will evaluate the exposure-response relationship between welding contaminants and occupational lung disease.

CL-BIB-0207

TITLE: North Carolina Dusty Trades File
STATUS: Started 10/84; complete 9/90
CONTACT: NIOSH/DRDS/EPIB, Harlan Amandus (302) 291-4476
CAS NO: 7631-86-9, 1332-21-4
CHEMICAL: SILICA, ASBESTOS
PROJECT TYPE: Epidemiology Study
DESCRIPTION: Estimates of silica-silicosis dose response relationships will be derived.

CL-BIB-0208

TITLE: Morbidity/Mortality Study of Industrial Sand Industry
STATUS: Started 10/83; complete 9/90
CONTACT: NIOSH/DRDS/EPIB, Harlan Amandus (304) 291-4476
CAS NO: 7631-86-9
CHEMICAL: SILICA
SOURCE: Sand Industry
PROJECT TYPE: Epidemiology Study
DESCRIPTION: This project will provide data to estimate exposure-response relationship, progression of silicosis, and association with lung cancer.

CL-BIB-0213

TITLE: Mortality of Diesel Exposed Miners
STATUS: Started 10/85; complete 9/90
CONTACT: NIOSH/DRDS/EPIB, John Gamble (304) 291-4476
CAS NO: CL-DIESEL
CHEMICAL: DIESEL EXHAUST
SOURCE: Mining
PROJECT TYPE: Epidemiology Study
DESCRIPTION: This mortality study of miners exposed to diesel exhaust will determine the risk of lung cancer from exposure to diesel exhaust.

CL-BIB-0224

TITLE: Ethylene Oxide Mortality Study - NCI
STATUS: Started 10/82; complete 9/90
CONTACT: NIOSH/DSHEFS/IWSB, Leslie Stayner (513) 841-4481
CAS NO: 75-21-8
CHEMICAL: ETHYLENE OXIDE
PROJECT TYPE: Epidemiology Study
DESCRIPTION: This is a cohort mortality study of workers who have been exposed to ethylene oxide in the course of sterilizing medical supplies or spices. The mortality experience of the cohort wi l be compared to that of the general population, stratified by age, race, sex, and calendar time. Further analysis by dose categories will be conducted to detect any dose-response. Exposure categorization will be based on existing industrial hygiene sampling data, new sampling data collected by NIOSH, and historial reconstruction based on process descriptions. The principal hypothesis to be tested is that exposure to ethylene oxide increases the risk of leukemia.

CL-BIB-0225

TITLE: Investigation of Workers Exposed to MBOCA
STATUS: Started 10/82; complete 6/89
CONTACT: NIOSH/DSHEFS/IWSB, Elizabeth Ward (513) 841-4203
CAS NO: 101-14-4
CHEMICAL: MBOCA, (CURENE)
PROJECT TYPE: Epidemiology Study
DESCRIPTION: The project consists of a cohort mortality and cancer incidence study. Personnel records of 540 workers exposed to MBOCA from 1968-1979 at an MBOCA production facility were filmed in 1981. Mortality follow-up has been ongoing since that time. Currently, a cancer incidence study which involves a telephone interview to determine whether cancer has been diagnosed and a medical screening examination (urine cytology and urinalysis) to detect new cases is planned. The telephone interview will also elicit a detailed work history, which will be used to evaluate degree of exposure and information about smoking habits. Since the latency for the population, about 10 years, is short for induction of bladder tumors by occupational carcinogens, there is a plan to follow up by recontacting the population at regular intervals after the initial interview and screening examination.

CL-BIB-0227

TITLE: Update of Completed Cohort Mortality Studies - NCI
STATUS: Started 10/82; ongoing
CONTACT: NIOSH/DSHEFS/IWSB, David Brown (513) 841-4203
CAS NO: 1336-36-3, 127-18-4, 100-42-5, 106-99-0, 71-43-2, 7440-43-9, 75-01-4, CL-PEST
CHEMICAL: POLYCHLORINATED BIPHENYLS (PCB), PERCHLOROETHYLENE, PESTICIDES, RUBBER, STYRENE, 1,3-BUTADIENE, BENZENE, CADMIUM, VINYL CHLORIDE
PROJECT TYPE: Epidemiology Study
DESCRIPTION: These are epidemiological studies that assess the association between exposure and the risk of developing disease (primarily cancer). Through this project, cohorts from previous NIOSH studies will be followed through the most current date possible, additional death information will be added to the file, the analysis will be rerun, and new reports will be prepared. Therefore, the reanalysis will include a greater number of deaths (increasing the statistical power) and the latency period will be extended five to ten years (depending on the individual study).

CL-BIB-0230

TITLE: Medical, Biometric and Industrial Hygiene Study of Emerging Problems
STATUS: Started 10/79; ongoing
CONTACT: NIOSH/DSHEFS/IWSB, William Halperin (513) 841-4203
CAS NO: CL-VARIOUS
CHEMICAL: VARIOUS
PROJECT TYPE: Epidemiology Study
DESCRIPTION: The approach of this project generally will be to conduct literature searches and field surveys to collect information to determine if epidemiological studies (environmental, morbidity, and/or mortality) are feasible, and when feasible, to develop protocols as appropriate throughout the year and submit to the office of the director NIOSH, for approval. Requested assistance to other division or institute programs will be provided as required.

CL-BIB-0231

TITLE: Health Hazard Evaluations and Technical Assistance
STATUS: Started 10/80; ongoing
CONTACT: NIOSH/DSHEFS/IWSB, John Bainbridge (513) 841-4428
CAS NO: CL-VARIOUS
CHEMICAL: VARIOUS
PROJECT TYPE: Health Assessment
DESCRIPTION: This program will respond to hundreds of health hazard evaluation requests. They will work closely with State health departments and other NIOSH and CDC programs and will increase the dissemination of survey results.

CL-BIB-0232

TITLE: Epidemiologic and Industrial Hygiene Support of Toxic Substance Control Act - EPA
STATUS: Started 10/81; ongoing
CONTACT: NIOSH/DSHEFS/IWSB, Robert Herrick (513) 841-4203
CAS NO: 101-14-4, 117-81-7, 50-00-0, 75-21-8, 111-76-2, 110-80-5, 9016-45-9, 52196-63-7, CL-TIN
CHEMICAL: CURENE, 2-BIS-ETHYLHEXYLPHTHALATE, FORMALDEHYDE, ETHYLENE OXIDE, ETHYLENE GLYCOL MONOBUTYL ETHER, 2-ETHOXYETHANOL, ANTAROX, MONO(2,3-EPOXY-2-GLYCOLS) POLYETHYLENE, ORGANIC TIN COMPOUNDS
PROJECT TYPE: Epidemiology Study, Health Assessment
DESCRIPTION: Chemicals will be selected for inclusion in this project based on the mutual interests of both NIOSH and EPA. EPA suggests chemicals needing further evaluation prior to issuing regulations under the Toxic Substances Control Act. The evaluations will be conducted in three phases: I - a review of the toxic properties of the chemical; II - walk-through surveys conducted at companies for exposure evaluation and epidemiology feasibility assessment; and III - the most appropriate companies will be selected for indepth industrial hygiene sampling surveys.

CL-BIB-0240

TITLE: Retrospective Cohort Investigation of Non-Asbestos Welders
STATUS: Started 10/84; complete 9/89
CONTACT: NIOSH/DSHEFS/IWSB, Nelson Steenland (513) 841-4203
CAS NO: CL-WELD, 1332-37-2, CL-ETS
CHEMICAL: WELDING FUMES, IRON OXIDE, ENVIRONMENTAL TOBACCO SMOKE
SOURCE: Steel Industry, Welding
PROJECT TYPE: Epidemiology Study
DESCRIPTION: NIOSH has identified a cohort of welders of mild steel who are not exposed to asbestos, nickel, or chromium. The principal exposure of these workers has been to iron oxide, a promoter of lung cancer in animals. A retrospective cohort mortality study of these mild steel welders will be conducted. Industrial hygiene measurements of the extent of exposure to welding fumes have been taken by management since the late 1960's. The use of a nonexposed cohort as a comparison group will enable the mortality experience of the welders to be compared to another group which is likely to share similar smoking habits. If a lung cancer excess is observed, a case-control study with smoking interviews will be conducted.

CL-BIB-0242

TITLE: Case-Control Study of Lung Cancer in Teamsters Union
STATUS: Started 10/83; complete 9/89
CONTACT: NIOSH/DSHEFS/IWSB, Nelson Steenland (513) 841-4203
CAS NO: CL-DIESEL, CL-ETS
CHEMICAL: DIESEL EXHAUST, ENVIRONMENTAL TOBACCO SMOKE
SOURCE: Mobile Sources
PROJECT TYPE: Epidemiology Study
DESCRIPTION: This epidemiological study will assess the association between lung cancer in teamsters and exposures, especially to diesel exhaust. Bladder cancer also will be evaluated. A case-control study of lung cancer in the Teamsters Union will be conducted. Cases are 1,500 lung cancer deaths among long-term teamsters in the central states region during 1982-1983. Controls are 1,500 other deaths. Smoking data will be sought from next-of-kin. Cases will be compared with controls to calculate odds ratios for lung cancer due to working as a truck driver versus other jobs in the Union. Additionally, levels of exposure to diesel fumes will be estimated and odds ratios for diesel exposure will be calculated. All analyses will include control for smoking.

CL-BIB-0243

TITLE: Mortality Study of Workers Exposed to Toluene Diisocyanate
STATUS: Started 6/83; complete 6/89
CONTACT: NIOSH/DSHEFS/IWSB, Teresa Schnorr (513) 841-4203
CAS NO: 26471-62-5
CHEMICAL: TOLUENE DIISOCYANATE
PROJECT TYPE: Epidemiology Study
DESCRIPTION: This study will assess the association between exposure to toluene diisocyanate and the risk of developing respiratory cancer. A cohort of approximately 8,000 men and women employed at four different polyurethane foam manufacturing plants between 1958 and 1982 have been identified. Their employment histories and demographic data will be entered into a master file, and their vital status determined through follow-up with SSA, IRS, Post Office, Bureau of Motor Vehicles and a private Case-Location Service. Death certificates will be obtained from the appropriate states and the underlying cause of death coded according to the International Classification of Disease Revision in effect at the time of death. Standard life table analysis will be conducted to determine if the cohort has experienced excess mortality.

CL-BIB-0244

TITLE: Uranium Miners-Low Dose Investigation
STATUS: Started 10/82; complete 9/89
CONTACT: NIOSH/DSHEFS/IWSB, Robert Roscoe (513) 841-4203
CAS NO: 10043-92-2, CL-VARIOUS
CHEMICAL: RADON, VARIOUS
SOURCE: Uranium Mines; Mining
PROJECT TYPE: Epidemiology Study
DESCRIPTION: This epidemiologic study will assess the association between exposure to low levels of radon daughters and the risk of developing lung cancer. The project consists of two components: (1) A questionnaire survey of all living miners and the next-of-kin of miners who died after 1965. The questionnaire is designed to collect data concerning occupational exposures, smoking history, medical history, and diet. (2) After updating the computer files with the questionnaire data and the vital status data as of 1985, a cohort mortality analysis will be performed on the 4,140 cohort members. Mortality analyses will also be performed on various subcohorts based on exposure, smoking, dietary, and racial categories.

CL-BIB-0247

TITLE: Case-Control Mortality Study of Nitroglycerin-Exposed Workers
STATUS: Started 10/84; complete 9/89
CONTACT: NIOSH/DSHEFS/IWSB, Larry Elliott (513) 841-4374
CAS NO: 55-63-0
CHEMICAL: NITROGLYCERIN
SOURCE: Dynamite, Chemical Industry
PROJECT TYPE: Epidemiology Study
DESCRIPTION: A case-control study will be conducted with cases consisting of Cardiovascular Disease (CVD) deaths among a plant population and the controls consisting of plant workers not dying of CVD. The primary risk factor to be investigated will be occupational exposure to nitroglycerin. Other study variables that will be considered include sex, race, age, smoking history, and work assignment restrictions based on periodic CVD examinations conducted by the company. The analytical method will be a form of regression analysis.

CL-BIB-0252

TITLE: Access to National Occupational Hazard Survey Data Base Profile Development
STATUS: Started 10/78; ongoing
CONTACT: NIOSH/DSHEFS/SB, Joseph Seta (513) 841-4303
CAS NO: CL-VARIOUS
CHEMICAL: VARIOUS
PROJECT TYPE: Exposure Assessment, Health Assessment
DESCRIPTION: Trend analyses for the period spanned by NOHS (1972-1974) and NOES will be accomplished by comparing key variables common to both surveys to identify potential occupational hazards.

CL-BIB-0254

TITLE: Acrolein Emissions Update
STATUS: Ongoing
CONTACT: OAQPS/ESD/CPB, Dave Beck (919) 541-5421
CAS NO: 107-02-8
CHEMICAL: ACROLEIN
SOURCE: Chemical Plants
PROJECT TYPE: Emission Factors
DESCRIPTION: Acrolein emissions data will be reviewed and updated. Testing has been completed. The project is now at State initiative.

CL-BIB-0256

TITLE: Acetaldehyde Preliminary Source Assessment
STATUS: On hold
CONTACT: OAQPS/ESD/PAB, Scott Voorhees (919) 541-5348
CAS NO: 75-07-0
CHEMICAL: ACETALDEHYDE
SOURCE: Combustion Sources-esp. Woodburning
PROJECT TYPE: Source Assessment
DESCRIPTION: Available source information will be used to estimate the potential for emissions of acetaldehyde from combustion sources. This project is on hold while PAB undergoes transition from a single pollutant approach to a multipollutant source category approach.

CL-BIB-0257

TITLE: Engineering Study: Standards Development for Hazardous Waste Treatment, Storage, and Disposal Facilities
STATUS: Started 10/79; phase two complete 3/91
CONTACT: OAQPS/ESD/CPB, Kent Hustvedt (919) 541-5395
CAS NO: CL-HAZWAST, 75-07-0, CL-VOC, 75-44-5, 7440-43-9
CHEMICAL: HAZARDOUS WASTE, ACETALDEHYDE, VOLATILE ORGANIC COMPOUNDS, PHOSGENE, CADMIUM
SOURCE: Hazardous Waste Treatment, Storage, and Disposal Facilities
PROJECT TYPE: Pre-Regulatory Assessment, NESHAP Development, Emission Factor, Control Technology, NSPS Development
DESCRIPTION: The purpose of this project is to analyze the effects of organic air emissions from RCRA permitted hazardous waste treatment, storage, and disposal facilities. Regulatory options will be studied, and standards proposed and promulgated as necessary.

CL-BIB-0261

TITLE: Hazardous Organic NESHAP
STATUS: Ongoing
CONTACT: OAQPS/ESD/SDB, Doug Bell (919) 541-5568
CAS NO: 106-99-0, 75-09-2, 127-18-4, 79-01-6, 56-23-5 67-66-3, 107-06-2, 75-21-8
CHEMICAL: BUTADIENE,1,3-, METHYLENE CHLORIDE PERCHLOROETHYLENE, TRICHLOROETHYLENE, CARBON TETRACHLORIDE, CHLOROFORM, ETHYLENE DICHLORIDE, ETHYLENE OXIDE
PROJECT TYPE: NESHAP
DESCRIPTION: This NESHAP will control process vent and fugitive emissions of eight pollutants at chemical production facilities. The NESHAP is scheduled for proposal in November 1990, and promulgation in March 1992.

CL-BIB-0264

TITLE: Decision on Regulation of Hydrocyanic Acid Under the Clean Air Act
STATUS: On hold
CONTACT: OAQPS/ESD/PAB, Brenda Riddle (919) 541-5341
CAS NO: 74-90-8
CHEMICAL: HYDROCYANIC ACID
PROJECT TYPE: Pre-Regulatory Assessment
DESCRIPTION: The EPA will use available source and health information to estimate potential public exposure and risks resulting from non-accidental air emissions of hydrocyanic acid from stationary sources. This analysis will be used to decide whether or not to conduct further analysis of hydrocyanic acid as a toxic air pollutant under the Clean Air Act to determine if Federal regulation is warranted. This project is on hold while PAB undergoes transition from a single pollutant approach to a multipollutant source category approach.

CL-BIB-0267

TITLE: Decision on Regulation of Phosphorus Under the Clean Air Act
STATUS: On hold
CONTACT: OAQPS/ESD/PAB, Scott Voorhees (919) 541-5348
CAS NO: 7723-14-0
CHEMICAL: PHOSPHORUS
PROJECT TYPE: Pre-Regulatory Assessment
DESCRIPTION: The EPA will use available source and health information to estimate potential public exposure and risks resulting from non-accidental air emissions of phosphorus from stationary sources. This analysis will be used to decide whether or not to conduct further analysis of phosphorus as a toxic air pollutant under the Clean Air Act to determine if Federal regulation is warranted. This project is on hold while PAB undergoes transition from a single pollutant approach to a multipollutant source category approach.

CL-BIB-0268

TITLE: Decision on Regulation of Ethyl Chloride Under the Clean Air Act
STATUS: On hold
CONTACT: OAQPS/ESD/PAB, Karen Blanchard (919) 541-5503
CAS NO: 75-00-3
CHEMICAL: CHLOROETHANE
PROJECT TYPE: Pre-Regulatory Assessment
DESCRIPTION: The EPA will use available source and health information to estimate potential public exposure and risks resulting from non-accidental air emissions of ethyl chloride from stationary sources. This analysis will be used to decide whether or not to conduct further analysis of ethyl chloride as a toxic air pollutant under the Clean Air Act to determine if Federal regulation is warranted. This project is on hold while PAB undergoes transition from a single pollutant approach to a multipollutant source category approach.

CL-BIB-0269

TITLE: Decision on Regulation of Dimethylamine Under the Clean Air Act
STATUS: On hold
CONTACT: OAQPS/ESD/PAB, Dan Guth (919) 541-5340
CAS NO: 124-40-3
CHEMICAL: DIMETHYLAMINE
PROJECT TYPE: Pre-Regulatory Assessment
DESCRIPTION: The EPA will use available source and health information to estimate potential public exposure and risks resulting from non-accidental air emissions of dimethylamine from stationary sources. This analysis will be used to decide whether or not to conduct further analysis of dimethylamine as a toxic air pollutant under the Clean Air Act to determine if Federal regulation is warranted. This project is on hold while PAB undergoes transition from a single pollutant approach to a multipollutant source category approach.

CL-BIB-0270

TITLE: Decision on Regulation of Selenium and Its Compounds Under the Clean Air Act
STATUS: On hold
CONTACT: OAQPS/ESD/PAB, Fred Hauchman (919) 541-5339
CAS NO: 7782-49-2
CHEMICAL: SELENIUM, SELENIUM COMPOUNDS
PROJECT TYPE: Pre-Regulatory Assessment
DESCRIPTION: The EPA will use available source and health information to estimate potential public exposure and risks resulting from non-accidental air emissions of selenium from stationary sources. This analysis will be used to decide whether or not to conduct further analysis of selenium as a toxic air pollutant under the Clean Air Act to determine if Federal regulation is warranted. This project is on hold while PAB undergoes transition from a single pollutant approach to a multipollutant source category approach.

CL-BIB-0271

TITLE: Decision on Regulation of Phthalic Anhydride Under the Clean Air Act
STATUS: On hold
CONTACT: OAQPS/ESD/PAB, Fred Hauchman (919) 541-5339
CAS NO: 85-44-9
CHEMICAL: PHTHALIC ANHYDRIDE
PROJECT TYPE: Pre-Regulatory Assessment
DESCRIPTION: The EPA will use available source and health information to estimate potential public exposure and risks resulting from non-accidental air emissions of phthalic anhydride from stationary sources. This analysis will be used to decide whether or not to conduct further analysis of phthalic anhydride as a toxic air pollutant under the Clean Air Act to determine if Federal regulation is warranted. This project is on hold while PAB undergoes transition from a single pollutant approach to a multipollutant source category approach.

CL-BIB-0276

TITLE: Decision on Regulation of Maleic Anhydride Under the Clean Air Act
STATUS: On hold
CONTACT: OAQPS/ESD/PAB, Fred Hauchman (919) 541-5339
CAS NO: 108-31-6
CHEMICAL: MALEIC ANHYDRIDE
PROJECT TYPE: Pre-Regulatory Assessment
DESCRIPTION: The EPA will use available source and health information to estimate potential public exposure and risks resulting from non-accidental air emissions of maleic anhydride from stationary sources. This analysis will be used to decide whether or not to conduct further analysis of maleic anhydride as a toxic air pollutant under the Clean Air Act to determine if Federal regulation is warranted. This project is on hold while PAB undergoes transition from a single pollutant approach to a multipollutant source category approach.

CL-BIB-0277

TITLE: Decision on Regulation of Mercuric Chloride Under the Clean Air Act
STATUS: On hold
CONTACT: OAQPS/ESD/PAB, Ray Morrison (919) 541-5330
CAS NO: 7487-94-7
CHEMICAL: MERCURIC CHLORIDE
PROJECT TYPE: Pre-Regulatory Assessment
DESCRIPTION: The EPA will use available source and health information to estimate potential public exposure and risks resulting from non-accidental air emissions of mercuric chloride from stationary sources. This analysis will be used to decide whether or not to conduct further analysis of mercuric chloride as a toxic air pollutant under the Clean Air Act to determine if Federal regulation is warranted. This project is on hold while PAB undergoes transition from a single pollutant approach to a multipollutant source category approach.

CL-BIB-0278

TITLE: Decision on Regulation of Methanol Under the Clean Air Act
STATUS: Ongoing
CONTACT: OAQPS/ESD/PAB, Warren Peters (919) 541-5337
CAS NO: 67-56-1
CHEMICAL: METHANOL
PROJECT TYPE: Pre-Regulatory Assessment
DESCRIPTION: The EPA will use available source and health information to estimate potential public exposure and risks resulting from non-accidental air emissions of methanol from stationary sources. This analysis will be used to decide whether or not to conduct further analysis of methanol as a toxic air pollutant under the Clean Air Act to determine if Federal regulation is warranted.

CL-BIB-0279

TITLE: Health Assessment for Chromium, Update
STATUS: Ongoing
CONTACT: OHEA/ECAO-RTP, Winona Victery (919) 541-4828
CAS NO: 7440-47-3
CHEMICAL: CHROMIUM
PROJECT TYPE: Health Assessment
DESCRIPTION: This document is an update to one of a series of health assessment documents (HADs). It is a comprehensive assessment of the known health data, including carcinogenicity, mutagenicity, teratogenicity, and reproductive effects, from all the exposure routes on chromium. This update includes additional information on noncancer effects. The HADs serve as the scientific data base for potential health effects and are used by the OAQPS to determine the possible listing of hazardous air pollutants under Sections 111 and 112 of the Clean Air Act. The HAD report number will be EPA-600/8-87-048F.

CL-BIB-0280

TITLE: Health Assessment Document for Chlorine and Hydrogen Chloride, External Review
STATUS: External review draft due FY 89
CONTACT: OHEA/ECAO-RTP, Beverly Comfort (919) 541-4165
CAS NO: 7782-50-5, 7647-01-0
CHEMICAL: CHLORINE, HYDROGEN CHLORIDE
PROJECT TYPE: Health Assessment
DESCRIPTION: This document is one of a series of health assessment documents (HADs). It is a comprehensive assessment of the known health data, including carcinogenicity, mutagenicity, teratogenicity, and reproductive effects, from all exposure routes on chlorine and hydrogen chloride. The HADs serve as the scientific data base for potential health effects and are used by the OAQPS to determine the possible listing of hazardous air pollutants under Sections 111 and 112 of the Clean Air Act. The HAD report number will be EPA-600/8-87-041A.

CL-BIB-0281

TITLE: Development of Methods to Interpret Metabolism Data in Exposure Assessments
STATUS: Draft report complete
CONTACT: OHEA/EAG, Richard Walentowicz (202) 475-8922
PROJECT TYPE: Exposure Assessment, Toxicity Testing
DESCRIPTION: Pharmacokinetics data are being studied to determine exposure assessments. This project addresses various aspects of metabolism and pharmacokinetic modeling for application in exposure and risk assessments. Techniques that look at scaling factors at appropriate extrapolation among species are being considered as is the concept of physiological time.

CL-BIB-0282

TITLE: Health Assessment for Trichloroethylene Cancer Update
STATUS: Ongoing; complete fall '89
CONTACT: OHEA/HHAG, Charlie Ris (202) 382-7338
CAS NO: 79-01-6
CHEMICAL: TRICHLOROETHYLENE
PROJECT TYPE: Health Assessment
DESCRIPTION: A comprehensive assessment of the known health data for carcinogenicity from all exposure routes on trichloroethylene is being studied. This is an updated carcinogenicity assessment based on new inhalation and oral carcinogenicity bioassays as well as additional epidemiological studies.

CL-BIB-0286

TITLE: Toxics Air Monitoring Systems (TAMS)
STATUS: Ongoing: complete FY 91
CONTACT: AREAL, Gary Evans (919) 541-3124
CAS NO: CL-VOC, CL-SVOC, 50-00-0, 10028-15-6
CHEMICAL: VOLATILE ORGANIC COMPOUNDS, SEMIVOLATILE ORGANIC COMPOUNDS, FORMALDEHYDE, OZONE
PROJECT TYPE: Ambient Monitoring
DESCRIPTION: TAMS is a p'lot scale network to develop and evaluate methods for sample collection and analysis for ambient air toxics. This project is the program development for TAMS. The TAMS efforts are carried out through coordination of this project. Future studies will look at precursors to ozone, formaldehyde, semivolatile and polar compounds.

CL-BIB-0289

TITLE: Methods Development for Sampling Hazardous Waste Emissions from Stacks
STATUS: Started 10/86; ongoing
CONTACT: ORD/AREAL, Rodney Midgett (919) 541-2196
CAS NO: CL-HAZWAST, CL-SVOC, CL-VOC, CL-METAL, 630-08-0, 7647-01-1
CHEMICAL: HAZARDOUS WASTE, SEMIVOLATILE ORGANIC COMPOUNDS, VOLATILE ORGANIC COMPOUNDS, METALLIC COMPOUNDS, CARBON MONOXIDE, HYDROCHLORIC ACID
PROJECT TYPE: Source Sampling
DESCRIPTION: Several tasks are included in this project, including the sampling of semivolatiles, volatiles, toxic metals, HCl, and CO. Generally, methods are being developed to evaluate field testing procedures. Statistical analyses are being done to determine accuracy and precision of the methods.

CL-BIB-0290

TITLE: Indoor Air Quality Research
STATUS: Started 10/86; complete 9/90
CONTACT: ORD/EMSL-RTP, Ross Highsmith (919) 541-7828
CAS NO: CL-IAP
CHEMICAL: INDOOR AIR POLLUTANTS
PROJECT TYPE: Indoor Air, Source Assessment, Exposure Assessment, Health Assessment
DESCRIPTION: Field studies will begin in FY 88. This project will study methods for sample collection and analysis for indoor air pollutants of residential, office, and commercial buildings. The main purpose of this project is program management of modeling, measurement, and monitoring. A status report will be published in 1990.

CL-BIB-0291

TITLE: Monitoring Human Exposure to Hazardous Air Pollutants (HAPs)
STATUS: Started 10/82; reports due FY 89
CONTACT: ORD/AREAL/EARD, Ross Highsmith (919) 541-7828
CAS NO: CL-VARIOUS, CL-METAL, CL-VOC, 54-11-5
CHEMICAL: VARIOUS, HAZARDOUS AIR POLLUTANTS, METALLIC COMPOUNDS, VOLATILE ORGANIC COMPOUNDS, L-NICOTINE
PROJECT TYPE: Exposure Assessment
DESCRIPTION: Sampling procedures are being developed to monitor human exposure to a variety of compounds; for instance, nicotine has been sampled and analyzed, as well as metals and VOCs. Two papers were presented at the 1988 APCA/EPA Air Toxics Symposium: "Characterization of the Ambient Air Shed" and "Characterization of Indoor Environments." Two comprehensive reports are now being written.

CL-BIB-0296

TITLE: Process Evaluation of Ambient Air Monitoring Near a Sugar Beet Processing Plant in Idaho
STATUS: Started FY 86; ongoing
CONTACT: EPA Region X, John Schweiss (206) 442-1757
CAS NO: 50-00-0, 67-64-1, 107-02-8, 75-07-0, CL-VOC
CHEMICAL: FORMALDEHYDE, ACETONE, ACROLEIN, ACETALDEHYDE, VOLATILE ORGANIC COMPOUNDS
SOURCE: Sugar Beet Processing Plant
PROJECT TYPE: Dispersion Modeling, Exposure Assessment, Source Assessment, Source Sampling
DESCRIPTION: This study will evaluate six to nine different sources of VOCs at the plant. With data, environmental impacts will be modeled and health risk assessed. The project has progressed to the estimation of emissions and associated health risk. Monitoring, to support estimations, has been performed for two months by the facility. Additional monitoring will be conducted by the Idaho Air Quality Bureau.

CL-BIB-0297

TITLE: Study to Define and Determine Mitigation Methods for Air Toxics in Puget Sound
STATUS: Started FY 87; ongoing; report due 7/89
CONTACT: EPA Region X, Naydene Maykut (206) 344-7335
CAS NO: CL-ORGANIC, CL-METAL, CL-PM, CL-CARBON, CL-WOOD
CHEMICAL: ORGANIC COMPOUNDS, METALLIC COMPOUNDS, PARTICULATE MATTER, (10), TOTAL CARBON, WOOD SMOKE
PROJECT TYPE: Source Assessment, Control Technology, Dispersion Modeling, Exposure Assessment
DESCRIPTION: The project is being coordinated by Puget Sound Air Pollution Control Agency. Its objective is to first identify and characterize sources of air toxics, then to evaluate risk to the exposed population and determine mitigation options. The focus has been on wood smoke in neighborhoods and industrial emissions.

CL-BIB-0298

TITLE: Ambient Air Monitoring in Portland, Oregon (Urban Soup)
STATUS: Started 10/87; completed 10/88; report due 7/89
CONTACT: EPA Region X, Greg Lande (503) 229-5630
CAS NO: CL-ORGANIC, CL-PM, CL-METAL
CHEMICAL: VARIOUS, ORGANIC COMPOUNDS, PARTICULATE MATTER, METALLIC COMPOUNDS
PROJECT TYPE: Source Assessment, Ambient Monitoring, Exposure Assessment
DESCRIPTION: This project is a part of the Toxic Air Monitoring System and generates ambient monitoring data for the Portland Air Shed. Currently, these data are used in a preliminary assessment of air toxics concentrations. Once complete, the results will be used to prioritize future emphasis for the air toxics program.

CL-BIB-0303

TITLE: Cellular and Molecular Cardiac Toxicology
STATUS: Started 10/86; complete 9/89
CONTACT: NIOSH/DBBS/ETB, Mark Toraason (513) 533-8392
CAS NO: CL-VARIOUS
CHEMICAL: VARIOUS
PROJECT TYPE: Toxicity Testing
DESCRIPTION: This project will develop and test in vitro methods as alternatives to using whole animals for screening potential cardiotoxins, and for evaluating mechanisms of action of known cardiotoxins. Methods development will be suitable for assessing heart function in adult as well as fetal and neonatal cardiac tissue.

CL-BIB-0304

TITLE: Arylamine Adducts in Blood as Indicators of Exposure
STATUS: Started 10/85; complete 9/89
CONTACT: NIOSH/DBBS/ETB, Kenneth Cheever (513) 533-8392
CAS NO: 101-14-4
CHEMICAL: 4,4'-METHYLENE BIS (2-CHLOROANILINE)
PROJECT TYPE: Toxicity Testing
DESCRIPTION: This project will investigate the feasibility of using urinary metabolites and hemoglobin adducts as quantitative, integral exposure methods.

CL-BIB-0308

TITLE: Pulmonary Response to Inhaled Fibrogenic Minerals
STATUS: Started 10/86; complete 9/90
CONTACT: NIOSH/DRDS/LIB, Val Vallyathan (304) 291-4474
CAS NO: CL-MINFIB
CHEMICAL: MINERAL FIBER
SOURCE: Mining, Construction
PROJECT TYPE: Toxicity Testing
DESCRIPTION: Short-term, high dose inhalation experiments designed in these studies will provide valuable information on the pathogenesis of fibrogenic mineral. This study will contribute to the knowledge of major occupational lung diseases.

CL-BIB-0324

TITLE: Chlorofluorocarbon Chemical Substitutes
STATUS: Started 8/86; ongoing
CONTACT: AEERL/ATRD/IPB, Jane Bare (919) 541-1528
CAS NO: CL-CFC, 593-70-4, CL-SOLVENT, 10028-15-6
CHEMICAL: CHLOROFLUOROCARBONS, CHLOROFLUOROMETHANE, SOLVENTS, OZONE
PROJECT TYPE: Control Technology
DESCRIPTION: Chlorofluorocarbons (CFCs) are suspected of depleting ozone in the stratosphere. Before the year 2000, the use of CFCs in consumer products will probably be curtailed. Alternative compounds are being considered by industry; however, these chemicals have yet to pass toxicity and safety testing. This project is investigating backup CFC substitutes in case the compounds industry has selected to use as refrigerants, foam blowing agents, solvents, and compounds in fire extinguishers fail to pass testing.

CL-BIB-0330

TITLE: Study of the Effects of Appliance Type and Operating Variables on Residential Wood Combustion Emissions
STATUS: Started 3/87; final report in progress
CONTACT: AEERL/ATRD/ATCB, Bob McCrillis (919) 541-2733
CAS NO: CL-WOOD
CHEMICAL: WOOD SMOKE
SOURCE: Residential Wood Stoves
PROJECT TYPE: Control Technology, Emission Factor, Indoor Air
DESCRIPTION: This project is part of the IACP. Laboratory support work was done to verify the results of the Boise, ID, field study. Two different woodstoves were operated in the laboratory to correlate the emissions against burn rates, altitudes, stove model types, and wood species.

CL-BIB-0338

TITLE: Chlordane/Radon Mitigation Project
STATUS: Ongoing; report due summer '89
CONTACT: OAR/OAIAP/IAD, Betsy Agle (202) 382-7753
CAS NO: 57-74-9, 10043-92-2
CHEMICAL: CHLORDANE, RADON
PROJECT TYPE: Control Technology, Indoor Air
DESCRIPTION: The purpose of the project is to coordinate research into effectiveness of radon mitigation methods to reduce chlordane levels. Data collection has been completed.

CL-BIB-0339

TITLE: Environmental Tobacco Smoke Risk Evaluation
STATUS: Ongoing; report in progress
CONTACT: OAR/OAIAP/IAD, Jim Repace (202) 475-8593
CAS NO: CL-ETS
CHEMICAL: ENVIRONMENTAL TOBACCO SMOKE
PROJECT TYPE: Indoor Air, Exposure Assessment
DESCRIPTION: The project purpose is to formalize Agency evaluation of the risks of environmental tobacco smoke.

CL-BIB-0340

TITLE: Environmental Tobacco Smoke Manual
STATUS: Ongoing; report due fall '89
CONTACT: OAR/OAIAP/IAD, Bob Axelrad (202) 475-7174
CAS NO: CL-ETS
CHEMICAL: ENVIRONMENTAL TOBACCO SMOKE
PROJECT TYPE: Indoor Air, Regulatory Development Guidance
DESCRIPTION: Project purpose is to provide technical and policy guidance on mitigating risks from environmental tobacco smoke.

CL-BIB-0341

TITLE: Manual on Indoor Air Quality Problems in Commercial Buildings
STATUS: Ongoing; report in progress
CONTACT: OAR/OAIAP/IAD, Jim Repace (202) 475-8593
CAS NO: CL-IAP
CHEMICAL: INDOOR AIR POLLUTANTS
PROJECT TYPE: Indoor Air, Regulatory Development Guidance
DESCRIPTION: Project purpose is to provide guidance on prevention of indoor air quality problems in new and remodeled public and commercial buildings.

CL-BIB-0342

TITLE: Asbestos NESHAP Demolition and Renovation Inspection Safety Procedures Workshop Manual
STATUS: Started FY 88; final report due 6/89
CONTACT: OAQPS/SSCD, Kirk Foster (919) 541-4571
CAS NO: 1332-21-4
CHEMICAL: ASBESTOS
PROJECT TYPE: Accident Prevention/Emergency Response, Regulatory Development Guidance
DESCRIPTION: Safety procedures for Agency personnel inspecting asbestos NESHAP demolition and renovation sites.

CL-BIB-0345

TITLE: Chemical Hazard Information Profile for Cyclohexylthiophthalimide
STATUS: Started FY 87; ongoing
CONTACT: OTS/ECAD/CSB, John Leitzke (202) 382-3507
CAS NO: 17796-82-6
CHEMICAL: CYCLOHEXYLTHIOPHTHALIMIDE
SOURCE: Tire Manufacturing
PROJECT TYPE: CHIP, Source Assessment, Exposure Assessment, Toxicity Testing
DESCRIPTION: A summary of readily available information is presented in the following areas: production, use, environmental releases and fate, exposure information from monitoring, human health concerns, clinical and laboratory animal studies, and regulatory status.

CL-BIB-0347

TITLE: Field Evaluation of a Heavy Gas Detection and Dispersion Approach Using a Whole Air Technique
STATUS: Started FY 86; ongoing; reports in preparation
CONTACT: EPA Region VII, John Helvig (913) 236-3884
CAS NO: 71-55-6, 108-88-3
CHEMICAL: 1,1,1-TRICHLOROETHANE, TOLUENE
PROJECT TYPE: Ambient Monitoring, Dispersion Modeling
DESCRIPTION: Models under development that determine placement of field samples were tested in a field setting by sampling and analyzing canister samples of test atmospheres. Analyses were performed using GC/FID. Additional refinements of the models will be ongoing in 1989.

CL-BIB-0348

TITLE: Refinement of a Detection and Analysis Approach to Volatile Organic Compound Release Characterization Using a Whole Air Technique
STATUS: Started FY 87; ongoing; reports in preparation
CONTACT: EPA Region VII, John Helvig (913) 236-3884
CAS NO: 71-55-6, 108-88-3
CHEMICAL: 1,1,1-TRICHLOROETHANE, TOLUENE
PROJECT TYPE: Ambient Monitoring
DESCRIPTION: Two chemicals were used in a portable generator to set up a test atmosphere. The atmosphere was sampled using a stainless steel canister and Tenax tubes deployed in field configuration, based on meteorological conditions. Analyses were performed on subsamples of the spheres and on the Tenax tubes using GC/FID. Next step will be to develop quality assurance measures, perform further evaluation of the sampler deployment and additional field studies.

CL-BIB-0349

TITLE: Weight of Evidence
STATUS: Ongoing
CONTACT: OHEA/HHAG, Hal Zenick (202) 475-8913
CAS NO: CL-ORGANIC
CHEMICAL: VARIOUS ORGANIC
PROJECT TYPE: Health Assessment, Risk Assessment
DESCRIPTION: This project will generate weight of evidence approaches for estimating the reproductive, developmental, and inheritable risks for short-term exposure to nine air pollutants.

CL-BIB-0350

TITLE: Develop Dosimetry Models for VOC Hazard Identification
STATUS: Started 10/87; complete 9/90
CONTACT: OHR/HERL-RTP, John Overton (919) 541-7867
CAS NO: CL-VOC
CHEMICAL: VOLATILE ORGANIC COMPOUNDS (VOC)
PROJECT TYPE: Toxicity Testing, Health Assessment
DESCRIPTION: The purpose of this project is to develop whole body dosimetry models for volatile organic compounds that assess respiratory tract depositon and translocation of chemicals to other body compartments.

CL-BIB-0353

TITLE: Urban Air Toxics Monitoring Program
STATUS: Started FY 87; ongoing; 1988 reports due FY 89
CONTACT: OAQPS/TSD/MRB, Stan Sleva (919) 541-5652
CAS NO: CL-VARIOUS, CL-ALDEHYD
CHEMICAL: VARIOUS, ALDEHYDES
PROJECT TYPE: Ambient Monitoring
DESCRIPTION: Because of recent concern for high cancer risk from multi-source, multi-pollutant interactions in urban areas, State and local agencies have been seeking ways in which to assess the magnitude of potentially toxic compounds in their ambient air; to fill the need, EPA is coordinating toxic monitoring programs designed to provide air quality data for screening purposes. These programs are separate from programs within the Toxics Air Monitoring System (TAMS). Sampling is ongoing with equipment provided by EPA and manpower provided by State/local agencies. Two reports have been published that present the 1987 data. The 1988 aldehyde data was presented at the 1989 APCA/EPA Symposium. The remainder of the data will be published in FY 89 (EPA/450-4-89-005).

CL-BIB-0354

TITLE: Reportable Quantities Regulations
STATUS: Ongoing
CONTACT: OSWER/OERR/ERD, Barbara Hostage (202) 382-2198
CAS NO: CL-VARIOUS
CHEMICAL: VARIOUS
PROJECT TYPE: Accident Prevention/Emergency Response
DESCRIPTION: Development of regulations for 727 CERCLA hazardous substances and 321 compounds under SARA Title III is addressed in this project. Most regulations will be finalized in FY 89.

CL-BIB-0355

TITLE: Interpreted Role of Federally Permitted Releases
STATUS: Ongoing
CONTACT: OSWER/OERR/ERD, Barbara Hostage (202) 382-2198
CAS NO: CL-VARIOUS
CHEMICAL: VARIOUS
SOURCE: All (any release into the environment)
PROJECT TYPE: Accident Prevention/Emergency Response
DESCRIPTION: A release of any hazardous substance into the environment greater than the allowable permitted quantity is subject to reporting requirements. This FR notice is awaiting release by OMB and will focus on reporting requirements to the National Response Center. It was proposed last year and may be finalized next year.

CL-BIB-0356

TITLE: Locating and Estimating Air Emissions from Sources of Perchloroethylene and Trichloroethylene
STATUS: Ongoing; report due summer '89
CONTACT: OAQPS/AQMD/NPPB, Tom Lahre (919) 541-5668
CAS NO: 127-18-4, 79-01-6
CHEMICAL: PERCHLOROETHYLENE, TRICHLOROETHYLENE
PROJECT TYPE: Emission Factors, Source Assessment, Source Sampling, Control Technology
DESCRIPTION: The resulting report will be one in the series of "Locating and Estimating" documents. The document will describe sources of perchloroethylene and trichloroethylene. Also included will be process flow charts, listings of source locations, and emission factors. A section on sampling and analytical methods will be presented.

CL-BIB-0359

TITLE: Urban Air Toxics Program
STATUS: Ongoing
CONTACT: OAQPS/AQMD/NPPB, Jim Southerland (919) 541-5523
CAS NO: CL-VARIOUS
CHEMICAL: VARIOUS
SOURCE: Various (Automobiles, Dry Cleaners, Solvent Users, etc.)
PROJECT TYPE: Urban Risk Assessment
DESCRIPTION: A mixture of toxic air compounds is being assessed for health risks. The sources of interest are smaller, non-point sources such as automobiles, dry cleaners, etc. This is also a promotional project that encourages State and local agencies to monitor the urban areas themselves. This project is in two phases. Phase I is a base year analysis with a report due in June. Phase II is a controllability analysis with a report due in late summer.

CL-BIB-0360

TITLE: Field Testing and Method Evaluation for Industrial Cooling Towers
STATUS: Started FY 87; ongoing
CONTACT: OAQPS/TSD/EMB, Daniel Bivins (919) 541-5244
CAS NO: 7440-47-3
CHEMICAL: HEXAVALENT CHROMIUM, TOTAL CHROMIUM
SOURCE: Industrial cooling towers
PROJECT TYPE: Control Technology, Pre-Regulatory Assessment, Source Assessment, Source Sampling
DESCRIPTION: A number of industrial cooling towers are being tested to characterize the performance of selected technologies. The project is designed for purposes of developing background information for New Source Performance Standards or NESHAP. Method evaluation is being performed concurrent with the field tests. Measurements have focused on hexavalent chromium and total chromium.

CL-BIB-0362

TITLE: Field Testing of Municipal Waste Combustors
STATUS: Ongoing
CONTACE: OAQPS/TSD/EMB, Gene Riley (919) 541-5242
CAS NO: CL-PM, CL-FURAN, 7647-01-1, CL-DIOXIN, 7446-09-5, 630-08-0
CHEMICAL: PARTICULATE MATTER, FURANS, HYDROCHLORIC ACID, DIOXINS, SULFUR DIOXIDE, CARBON MONOXIDE
SOURCE: Municipal Waste Combustors
PROJECT TYPE: Control Technology, NESHAP Development, NSPS Development, Source Assessment, Source Sampling
DESCRIPTION: A number of municipal waste combustors (MWC) are being tested to characterize the performance of selected control technologies. Tests have included control device inlet and outlet concentrations of particulate matter, hydrochloric acid, dioxins, furans, SO2, and CO. The testing is being done to provide background data for the development of national emissions standards under Section 111 of the Clean Air Act. Draft methods have been prepared. Standards will be proposed in November.

CL-BIB-0363

TITLE: Integrated Risk Information System (IRIS)
STATUS: Ongoing
CONTACT: OHEA/ECAO-CIN, IRIS User Support (513) 569-7254
CAS NO: CL-VARIOUS
CHEMICAL: VARIOUS
PROJECT TYPE: Risk Assessment
DESCRIPTION: IRIS is an electronic on-line data base of summary health risk assessment and regulatory information on chemical substances. The primary purpose is to provide guidance risk values to EPA risk assessors and decision-makers for use in EPA risk assessments. IRIS provides a basis for greater consistency in EPA risk management and decision-making. There are approximately 400 risk assessments for 368 chemicals available on-line.

CL-BIB-0364

TITLE: Radionuclides NESHAPS
STATUS: Started 12/87; complete 12/89
CONTACT: ORP/CSD/ESB, Terrance McLaughlin (202) 475-9610
CAS NO: CL-RAD
CHEMICAL: RADIONUCLIDES
PROJECT TYPE: NESHAP Development, Risk Assessment
DESCRIPTION: In response to the vinyl chloride court decision, the Agency made a voluntary decision to reassess the health risks for radionuclides. The existing data has been reassessed, with reproposal in March 1989, and promulgation by December 1989.

CL-BIB-0369

TITLE: OOMS/DEGADIS Modeling Improvements
STATUS: Started 5/88; complete 9/88
CONTACT: OAQPS/TSD/SRAB, Dave Guinnup (919) 541-5368
CAS NO: CL-VARIOUS
CHEMICAL: VARIOUS
PROJECT TYPE: Dispersion Modeling
DESCRIPTION: The OOMS/DEGADIS model was developed for the EPA to use in predicting the dispersion of elevated releases of denser-than-air gases. This model performs a trajectory calculation which tracks the downward course of the dense gas until it touches the ground and follows this with a dense gas dispersion calculation. The range of applicability of the model was extended to include the dispersion of dense gas plumes which become neutrally buoyant (as a result of dilution with the atmosphere) prior to touching the ground. A OOMS/DEGADIS 2-1 Users Manual is available (NTIS PB-202395/REB).

CL-BIB-0370

TITLE: Investigation, Documentation and Testing of a Proposed Wet Deposition and Related Algorithms to ISC Models
STATUS: Ongoing; draft report in progress
CONTACT: OAQPS/TSD/SRAB, Peter Eckhoff (919) 541-5385
CAS NO: CL-VARIOUS
CHEMICAL: VARIOUS
SOURCE: Municipal Waste Combustors
PROJECT TYPE: Dispersion Modeling
DESCRIPTION: The UNAMAP series of ISC models does not include an algorithm for considering wet deposition. Recent work by the H.E. Cramer Co., Inc., has added a wet deposition algorithm to ISCST for evaluating the environmental effects of emissions from a municipal waste combustor site. The purpose of this contract was to have the contractor do a literature search, evaluation, and documentation so a similar wet deposition algorithm can be added to ISCST. The contractor was also tasked with laying the groundwork for eventual addition of a wet deposition algorithm to ISCLT. Additional follow-up work is planned.

CL-BIB-0371

TITLE: Assessment of Air Quality Impacts from Superfund Sites
STATUS: Started 9/87; complete 7/89
CONTACT: EPA Region V, John Summerhays (312) 353-6009
CAS NO: CL-HAZWAST
CHEMICAL: HAZARDOUS COMPOUNDS
SOURCE: Superfund Cleanup Operation Sites
PROJECT TYPE: Dispersion Modeling, Emission Factors, Source Sampling
DESCRIPTION: The purpose of this project is to develop a four-volume series which assesses air quality impacts from Superfund sites. Volume I will be a general discussion of air impacts at Superfund sites. Volume II, "Estimations of Baseline Emissions at Superfund Sites" and Volume III, "Estimations of Air Emissions from Cleanup Activities at Superfund Sites," are completed. Volume IV will be a discussion of application of modeling and monitoring at the sites.

CL-BIB-0372

TITLE: Health Assessment Document for Mineral Fibers
STATUS: External review draft due FY 89
CONTACT: OHEA/ECAO-RTP, Dennis Kotchmar (919) 541-4158
CAS NO: CL-MINFIB
CHEMICAL: MINERAL FIBERS
PROJECT TYPE: Health Assessment
DESCRIPTION: This project is a comprehensive assessment of the known health data, including carcinogenicity, mutagenicity, teratogenicity, and reproductive effects from all exposure routes on mineral fibers. This document is one of a series of health assessment documents (HADs). The HADs serve as the scientific data base for potential health effects and are used by the OAQPS to determine the possible listing of hazardous air pollutants under Sections 111 and 112 of the Clean Air Act.

CL-BIB-0373

TITLE: Health Assessment Document for Methyl Isocyanate
STATUS: Final report due FY 89
CONTACT: OHEA/ECAO-RTP, Mark Greenberg (919) 541-4156
CAS NO: 624-83-9
CHEMICAL: METHYL ISOCYANATE
PROJECT TYPE: Health Assessment
DESCRIPTION: This project is a comprehensive assessment of the known health data, including carcinogenicity, mutagenicity, teratogenicity and reproductive effects from all exposure routes on methyl isocyanate. This document is one of a series of health assessment documents (HADs). The HADs serve as the scientific data base for potential health effects and are used by the OAQPS to determine the possible listing of hazardous air pollutants under Sections 111 and 112 of the Clean Air Act.

CL-BIB-0374

TITLE: Health Assessment Document for Toluene Diisocyanate
STATUS: Final report due FY 89
CONTACT: OHEA/ECAO-RTP, Mark Greenberg (919) 541-4156
CAS NO: 584-84-9
CHEMICAL: TOLUENE-2,4-DIISOCYANATE
PROJECT TYPE: Health Assessment
DESCRIPTION: This project is a comprehensive assessment of the known health data, including carcinogenicity, mutagenicity, teratogenicity and reproductive effects from all exposure routes on toluene diisyocyanate. This document is one of a series of health assessment documents (HADs). The HADs serve as the scientific data base for potential health effects and are used by the OAQPS to determine the possible listing of hazardous air pollutants under Sections 111 and 112 of the Clean Air Act.

CL-BIB-0376

TITLE: Glycol Ethers - NTP Management
STATUS: Started 10/86; complete 9/92
CONTACT: NIOSH/DBBS/ABPB, Dr. Frances Reid (513) 533-8360
CAS NO: 110-80-5, 109-86-4
CHEMICAL: 2-ETHOXYETHANOL, 2-METHOXYETHANOL
PROJECT TYPE: Toxicity Testing
DESCRIPTION: This project provides an NTP chemical manager to develop prechronic and chronic study designs for toxicity and cancer. Several glycol ethers were nominated to NTP because of their wide use in the industry, potential for increased usage, and concern about chronic toxicity by UAW INTERNATIONAL, CPSC, and NIOSH.

CL-BIB-0379

TITLE: Indoor Air Reference Data Base
STATUS: Ongoing
CONTACT: OHEA/ECAO-RTP, Norm Childs (919) 541-2229
CAS NO: CL-IAP
CHEMICAL: INDOOR AIR POLLUTANTS
PROJECT TYPE: Indoor Air
DESCRIPTION: This data base maintains a comprehensive bibliography of reference materials on indoor air pollution. There are about 4000 citations currently in the data base. An updated version will be published in FY 89.

CL-BIB-0382

TITLE: Beryllium NESHAP Review
STATUS: On hold
CONTACT: OAQPS/ESD/PAB, Scott Voorhees (919) 541-5348
CAS NO: 7440-41-7
CHEMICAL: BERYLLIUM
PROJECT TYPE: NESHAP Development
DESCRIPTION: Current NESHAP for beryllium and assessment of any new data for health and/or source assessment will be reviewed. This project is on hold while PAB undergoes transition from a single pollutant approach to a multipollutant source category approach.

CL-BIB-0383

TITLE: Decision on Regulation of Dioxins/Furans Under the Clean Air Act
STATUS: Ongoing
CONTACT: OAQPS/ESD/PAB, Fred Hauchman (919) 541-5339
CAS NO: CL-DIOXIN, CL-FURAN
CHEMICAL: DIOXINS, FURANS
PROJECT TYPE: Pre-Regulatory Assessment
DESCRIPTION: The EPA will use available source and health information to estimate potential public exposure and risks resulting from non-accidental air emissions of dioxins/furans from stationary sources. This analysis will be used to decide whether or not to conduct further analysis of dioxins/furans as a toxic air pollutant under the Clean Air Act to determine if Federal regulation is warranted.

CL-BIB-0384

TITLE: Chromium Electroplating NESHAP Development
STATUS: Ongoing
CONTACT: OAQPS/ESD/ISB, Andy Smith (919) 541-5398
CAS NO: 7440-47-3
CHEMICAL: CHROMIUM
SOURCE: Chrome electroplating
PROJECT TYPE: NESHAP Development
DESCRIPTION: NESHAP development is underway to regulate chromium emissions from industrial facilities.

CL-BIB-0385

TITLE: Industrial Cooling Towers Chromium NESHAP Development
STATUS: Ongoing
CONTACT: OAQPS/ESD/ISB, Ron Meyers (919) 541-5407
CAS NO: 7440-47-3
CHEMICAL: CHROMIUM
PROJECT TYPE: NESHAP Development
DESCRIPTION: A technical background information document will be developed. Tasks include field tests to establish performance of controls and cost analysis for alternative controls.

CL-BIB-0386

TITLE: Reproposal of Regulation for Boilers, Industrial Furnaces, and Incinerators That Use Hazardous Waste as Fuel
STATUS: Ongoing
CONTACT: OSW/WMD/WTB, Dwight Hlustick (202) 382-7921
CAS NO: CL-METAL, CL-VOC, CL-VARIOUS
CHEMICAL: METALS, VOLATILE ORGANIC COMPOUNDS, VARIOUS
SOURCE: Industrial Furnaces, Hazardous Waste Incinerators, Industrial Boilers
PROJECT TYPE: Regulatory Development Guidance
DESCRIPTION: Regulations are being reproposed for the emissions of metals, VOC, and hazardous air pollutants from industrial boilers, furnaces, and hazardous waste incinerators. The Federal Register notification listing the intent to revise the regulations is proposed for fall 1989.

CL-BIB-0389

TITLE: Multimedia, Multipollutant Field Study To Establish Levels of Toxics Contained in Air, Soil, Sediments, Water and Agricultural Products from a Model Municipal Waste Combustor
STATUS: Ongoing
CONTACT: OHEA/ECAO-CIN, Cynthia Sonich-Mullin (513) 569-7523
CAS NO: CL-ORGANIC, CL-INORGAN
CHEMICAL: ORGANIC COMPOUNDS, INORGANIC COMPOUNDS
SOURCE: Municipal Waste Combustors
PROJECT TYPE: Risk Assessment
DESCRIPTION: During a one-year period, an ambient air monitoring network for pollutants will be operated at a municipal waste combustor in Rutland, Vermont. Ambient air samples will be analyzed for specific organic and inorganic compounds and also for other components, which may be associated with municipal waste combustion. In addition, grab samples in agricultural soil, sediment, and surface waters surrounding the facility will be collected and analyzed for similar toxic contaminants. This study will provide a framework for future field assessments of other municipal waste combustors.

CL-BIB-0390

TITLE: Studies on Toxicity Applicable to Risk Assessment (STARA)
STATUS: Ongoing
CONTACT: OHEA/ECAO-CIN, Richard Hertzberg (513) 569-7582
CAS NO: CL-VARIOUS
CHEMICAL: VARIOUS
PROJECT TYPE: Risk Assessment
DESCRIPTION: This database on the Agency's mainframe computer system contains quantitative toxicity data at the dose-group level compiled from world scientific publications. The associated programs allow easy access to chemical-specific toxicity data for on-screen review or downloading to a printer or personal computer. The programs also convert the raw data into common dose units of mg/kg/day, and provide graphs of the data as risk vs. dose vs. duration vs. toxic severity. A user's guide is available. Chemical toxicity tables on-line as of February 1988, 161; chemical epidemiological tables on-line as of February 1988, 30.

CL-BIB-0391

TITLE: Source Category Parameters
STATUS: Ongoing
CONTACT: OAQPS/ESD/CPB, Bob Rosensteel (919) 541-5674
CAS NO: CL-VARIOUS
CHEMICAL: VARIOUS
PROJECT TYPE: Source Assessment, Pre-Regulatory Assessment
DESCRIPTION: A data base of emission parameters for the top 100 pollutants from the current Modified Hazardous Air Pollutant Prioritization System (MHAPPS) has been developed. The data base is used to rank source categories of emissions and identify the best regulatory candidates. Additional chemicals have been proposed for future study.

CL-BIB-0392

TITLE: The Toxic Interaction Database, MIXTOX
STATUS: Ongoing
CONTACT: OHEA/ECAO-CIN, Richard Hertzberg (513) 569-7582
CAS NO: CL-VARIOUS
CHEMICAL: VARIOUS
PROJECT TYPE: Risk Assessment
DESCRIPTION: This personal computer database contains summary toxicity data from published laboratory studies on toxic interactions between chemicals. The data include the exposure conditions, observed toxic effects and type of interaction, as well as the statistical analysis method used. Diskettes containing the data and access programs are being shipped to all regions. There are 1200 chemical interactions listed as of February 1988.

CL-BIB-0393

TITLE: SARA Title IV Report to Congress
STATUS: Ongoing; report due FY 89
CONTACT: OAR/OAIAP/IAD, Bob Axelrad (202) 475-7174
CAS NO: CL-VARIOUS
CHEMICAL: VARIOUS
PROJECT TYPE: Pre-Regulatory Assessment, Regulatory Development Guidance
DESCRIPTION: This report will describe EPA's activities and related activities of other Federal agencies that pertain to SARA Title IV work.

CL-BIB-0394

TITLE: Introductory Indoor Air Quality (IAQ) Course for State and Local Public Health Officials
STATUS: Ongoing; draft report due fall '89
CONTACT: OAR/OAIAP/IAD, Dave Mudarri (202) 475-8592
CAS NO: CL-IAP
CHEMICAL: INDOOR AIR POLLUTANTS
PROJECT TYPE: Indoor Air
DESCRIPTION: The Indoor Air Section of the Office of Air and Radiation will work with the Public Health Service and the National Environmental Health Association to provide training on IAQ issues. Course preparation should be completed in the winter of 1988.

CL-BIB-0399

TITLE: Archive and Evaluate Selected Air Toxics Dispersion Models
STATUS: Ongoing; complete FY 89
CONTACT: OAQPS/AQMD/MPPB, Joe Touma (919) 541-5383
CAS NO: CL-VARIOUS
CHEMICAL: VARIOUS
PROJECT TYPE: Dispersion Modeling
DESCRIPTION: The purpose of this project is to archive data bases and evaluate toxic air dispersion models.

CL-BIB-0401

TITLE: Toxic Chemical Testing for Assessment Exposure Monitoring Systems Development
STATUS: Ongoing; complete 12/99
CONTACT: ORD/AREAL, William Nelson (919) 541-3184
CAS NO: CL-VARIOUS, CL-VOC
CHEMICAL: VARIOUS, VOLATILE ORGANIC COMPOUNDS
PROJECT TYPE: Exposure Assessment
DESCRIPTION: The purpose of this project is to conduct research on exposure monitoring methods and systems to improve estimates of human exposure to pollutants. Data bases and procedures will be developed to assess human exposure in support of OTS programs. This includes relating exposures to body burdens, development of a geographical information system for exposure assessment and evaluation of data produced in total exposure assessment methods studies. Currently, VOCs in breath are being monitored. A miniaturized and refined breath sampling device has been developed. Methods comparisons will be conducted.

CL-BIB-0405

TITLE: Development of New Methods for SW846
STATUS: Started 10/82; complete 11/99
CONTACT: ORD/AREAL, Larry Johnson (919) 541-7943
CAS NO: CL-VOC, CL-SVOC, CL-DIOXIN
CHEMICAL: VOLATILE ORGANIC COMPOUNDS, SEMIVOLATILE ORGANIC COMPOUNDS, DIOXINS
PROJECT TYPE: Ambient Monitoring, Source Assessment
DESCRIPTION: Monitoring methods for organics will be developed and evaluated for ambient air and emission sources. Methods for dioxin monitoring will be developed. Additional matrices of interest include incinerator emissions containing a broad spectrum of volatile, semivolatile compounds, and landfill leachates containing intact, biodegraded, or chemically altered components.

CL-BIB-0406

TITLE: Determination of Population Exposure to Mobile Source Pollutants
STATUS: Ongoing; complete 12/91
CONTACT: ORD/AREAL, William Nelson (919) 541-3184
CAS NO: CL-HCARB, CL-METAL, 630-08-0
CHEMICAL: HYDROCARBONS, METALLIC COMPOUNDS, CARBON MONOXIDE
SOURCE: Automobiles
PROJECT TYPE: Exposure Assessment
DESCRIPTION: The goal of this research is to extend the general exposure methodology used successfully for CO to other situations and to other mobile source air pollutants. Data from previous population exposure field studies for CO are being reviewed, and data that can be generalized to other areas, such as human activity patterns, are being evaluated in detail. A workshop was conducted in August 1988, on the state-of-the-art of vehicular exposure model development. Currently, the focus of the project is on refining the modeling techniques.

CL-BIB-0407

TITLE: Residential Wood Combustion and Automotive Emissions on the Boise, Idaho Air Shed
STATUS: Started 10/87; ongoing
CONTACT: ORD/AREAL, Gerald Akland (919) 541-2346
CAS NO: CL-PM, CL-ALDEHYD, CL-VOC, CL-WOOD
CHEMICAL: PARTICULATE MATTER, ALDEHYDES, VOLATILE ORGANIC COMPOUNDS, WOOD SMOKE
SOURCE: Wood Combustion, Automobiles
PROJECT TYPE: Source Sampling, Source Assessment
DESCRIPTION: This project is part of the overall Integrated Air Cancer Project (IACP). Air sheds with one or two emission sources are being examined beginning with wood combustion for residential heating. The project will look at particulate matter, continuous emission monitoring, aldehydes, VOCs, and various other compounds.

CL-BIB-0408

TITLE: Integrated Air Cancer Project (IACP)
STATUS: Started FY 84; complete 9/92
CONTACT: ORD/AREAL, Barbara Andon (919) 541-7532
CAS NO: CL-CARCIN, CL-WOOD
CHEMICAL: CARCINOGENS, WOOD SMOKE
SOURCE: Residential Oil and Wood Combustion and Mobile Sources
PROJECT TYPE: Exposure Assessment, Source Assessment
DESCRIPTION: The IACP is an interdisciplinary research program aimed at identifying the major carcinogenic chemicals emitted into the air, the specific sources of these chemicals, and their impact on human exposure. Three EPA laboratories (AREAL, AEERL, HERL) are working to realize the IACP's goals. Utilizing monitoring data and modeling expertise, the studies will focus on specific problem areas and attempt to develop relationships between sources and receptors. Initial phases of the project focused on the evaluation and source identification of the products of incomplete combustion from residential wood combustion and automotive emissions (Raleigh, NC, Albuquerque, NM, and Boise, ID). Portions of this work have been published in EPA Report No. 600/9-87-010 and No. 600/9-88-015 and No. 600/9-87-010.

CL-BIB-0409

TITLE: Support of EPA's Environmental Epidemiologic Program
STATUS: Started 10/85; draft report due FY 89
CONTACT: NIOSH/DSHEFS/IWSB, Paul Schulte (513) 841-4203
CAS NO: 75-21-8
CHEMICAL: ETHYLENE OXIDE
PROJECT TYPE: Epidemiology Study
DESCRIPTION: The environmental epidemiology program of the health effects research laboratory has responsibility for providing the Office of Toxic Substances (OTS) with the results of epidemiologic research to satisfy their regulatory missions. The OTS needs include assessments of human health risks for use in establishing a basis for requiring industrial testing under Section 4 of the Toxic Substances Control Act. This study examines biological markers associated with exposure to ethylene oxide in hospital workers.

CL-BIB-0410

TITLE: Mortality Study of Workers Exposed to Halowax
STATUS: Started 10/83; complete 9/90
CONTACT: NIOSH/DSHEFS/IWSB, Elizabeth Ward (513) 841-4203
CAS NO: 2050-69-3, 2198-75-6, 1825-31-6, 1825-30-5, 2050-72-8, 2050-73-9, 2050-75-1, 2198-77-8, 58718-66-4, 58718-67-5, 39450-05-0
CHEMICAL: DICHLORONAPHTHALENE ISOMERS: 1,2-, 1,3-, 1,4-, 1,5-, 1,6-, 1,7-, 2,3-, 2,7-; HALOWAXES: 1000, 1001, 1099
SOURCE: Manufacture of Electric Cable - Coating Process
PROJECT TYPE: Epidemiology Study
DESCRIPTION: Two plant sites will be included in this retrospective cohort mortality study. Plant "A" used chlorinated naphthalenes during the early 1940s to coat electrical cables. Approximately 9000 individuals worked at the plant during that time and 800 of them developed dermatitis. Plant "B" used chlorinated naphthalenes from 1966 to 1968, during which time approximately 125 of 600 workers developed chloracne. The observed deaths will be compared to those expected, where the expected deaths are calculated based on a standard population, and are adjusted for age, race, sex, and calendar year.

CL-BIB-0414

TITLE: Case-Control Survey to Test Hypotheses Generated by Computer Maps
STATUS: Started 10/83; ongoing
CONTACT: NIOSH/DSHEFS/SB, Carol Burnett (513) 841-4303
CAS NO: CL-VARIOUS
CHEMICAL: DUSTS, FUMES, GASES
PROJECT TYPE: Epidemiology Study
DESCRIPTION: This project's purpose is to implement strategy recommendations for occupational lung diseases, cancers, cardiovascular diseases, and disorders of reproduction and dermatologic conditions. It will help to build death certificate-based case-control studies as a new, in-house surveillance capability. These hypothesis testing activities facilitate the Institute's setting of research priorities. Hypotheses among occupation, industry, and disease are investigated by case-control analyses based on death certificates. Factors considered in the selection of hypotheses include the significance of the association under scrutiny, concentration of industry in the area, known or suspected hazards in the industry, epidemiologic data concordance with the association, and power of the investigation to detect differences.

CL-BIB-0419

TITLE: TEAM Study: Indoor Air: Particle Study
STATUS: Ongoing; report due FY 90
CONTACT: ORD/OMMSQA, Lance Wallace (202) 382-5792
CAS NO: CL-VARIOUS, CL-IAP
CHEMICAL: VARIOUS, INDOOR AIR POLLUTANTS
PROJECT TYPE: Indoor Air
DESCRIPTION: The objective of this project is to examine and determine human exposure from indoor and outdoor inhalable particles. A pre-pilot study was completed in California in March 1989.

CL-BIB-0421

TITLE: Neurobehavioral and Sensory Irritant Effects of Complex VOC Mixtures in Humans
STATUS: Ongoing; report due FY 89
CONTACT: OHR/HERL-RTP, David Otto (919) 966-6226
CAS NO: CL-VOC
CHEMICAL: VOLATILE ORGANIC COMPOUNDS
PROJECT TYPE: Indoor Air, Exposure Assessment
DESCRIPTION: The project objective is to corroborate and extend Danish studies of human exposures to complex VOC mixtures which result in Sick Building Syndrome.

CL-BIB-0423

TITLE: Baltimore Integrated Management Project (IMP)
STATUS: Ongoing; complete FY 89
CONTACT: OPPE/RID, Andy Manale (202) 382-2753
CAS NO: CL-VARIOUS, CL-IAP
CHEMICAL: VARIOUS, INDOOR AIR POLLUTANTS
PROJECT TYPE: Indoor Air
DESCRIPTION: The purpose of this project is to compare levels of air pollution inside and outside homes. Report pending.

CL-BIB-0424

TITLE: State Surveys
STATUS: Ongoing
CONTACT: ORP/RD/PAB, Kirk Maconaughey (202) 475-9605
CAS NO: 10043-92-2
CHEMICAL: RADON
PROJECT TYPE: Indoor Air, Source Assessment
DESCRIPTION: The purpose of these surveys is to determine the frequency distribution of radon levels and identify radon hot spots in given States. Twenty-five States and two Indian nations have been evaluated so far. A press release is due this summer.

CL-BIB-0425

TITLE: House Evaluation Program
STATUS: Ongoing
CONTACT: ORP/RD/MPQAB, Mike Mardis (202) 475-9605
CAS NO: 10043-92-2
CHEMICAL: RADON
PROJECT TYPE: Indoor Air, Source Assessment, Control Technology
DESCRIPTION: The project objective is to provide examples of radon identification and correction measures.

CL-BIB-0426

TITLE: Land Evaluation and Soil Gas Studies
STATUS: Started 1987; ongoing
CONTACT: ORP/RD/PAB, Kirk Maconaughey (202) 475-9605
CAS NO: 10043-92-2
CHEMICAL: RADON
PROJECT TYPE: Indoor Air, Source Assessment
DESCRIPTION: The project objective is to identify land and soil characteristics that cause radon problems.

CL-BIB-0432

TITLE: Study of Exposure to Anti-Microbials
STATUS: Ongoing
CONTACT: OPP/RD/APB, Jim Wilson (202) 557-7109
CAS NO: CL-VARIOUS
CHEMICAL: VARIOUS
SOURCE: Anti-microbial products
PROJECT TYPE: Indoor Air, Exposure Assessment
DESCRIPTION: The study objective is to determine exposure to anti-microbials from products used in buildings accessible to general public. Ninety-five percent of notices of intent to suspend have been issued.

CL-BIB-0434

TITLE: A Study of Formaldehyde from Pressed Wood Products
STATUS: Ongoing
CONTACT: OTS/CCD/ECCB, George Semeniuk (202) 382-2134
CAS NO: 50-00-0
CHEMICAL: FORMALDEHYDE
SOURCE: Pressed Wood Products
PROJECT TYPE: Control Technology, Indoor Air
DESCRIPTION: The purpose of the project is to assess risks and identify and implement mitigation measures, if appropriate.

CL-BIB-0435

TITLE: Revisions to the NESHAP Regulation (Section 112 of the Clean Air Act) for Asbestos
STATUS: Ongoing
CONTACT: OAQPS/ESD/SDB, Sims Roy (919) 541-5263
CAS NO: 1332-21-4
CHEMICAL: ASBESTOS
PROJECT TYPE: Indoor Air, NESHAP
DESCRIPTION: The objective of the work is to protect public health from exposure to asbestos in ambient air. Revisions to the NESHAP regulation were proposed January 1989. Final rule is expected in late 1990.

CL-BIB-0436

TITLE: Paradichlorobenzene (Used in Moth Repellents and Air Fresheners)
STATUS: Ongoing
CONTACT: OTS/ECAD/RAB, Francine Pen Eyck (202) 382-3562
CAS NO: 106-46-7
CHEMICAL: 1,4-DICHLOROBENZENE
SOURCE: Moth Repellants, Air Fresheners
PROJECT TYPE: Indoor Air, Pre-Regulatory Assessment
DESCRIPTION: The purpose of this project is to assess risks; then to issue and implement regulations as necessary to protect health.

CL-BIB-0437

TITLE: Integrated Solvents Workgroup
STATUS: Ongoing
CONTACT: OTS/CCD/ECCB, Larry Dorsey (202) 382-3777
CAS NO: CL-ORGANIC, 75-09-2, 79-01-6, 127-18-4, CL-SOLVENT
CHEMICAL: ORGANICS, METHYLENE CHLORIDE, TRICHLOROETHYLENE, PERCHLOROETHYLENE, SOLVENTS
PROJECT TYPE: Indoor Air, Pre-Regulatory Assessment
DESCRIPTION: The purpose of the project is to coordinate interagency assessment of key policy issues regarding uses of 6 major solvents; also, to identify regulatory and non-regulatory options to reduce exposure. Decisions scheduled for 1988.

CL-BIB-0438

TITLE: Computerized Consumer Exposure Model (CCEM) Development
STATUS: Ongoing
CONTACT: OTS/EED/EAB, Pat Kennedy (202) 382-3916
PROJECT TYPE: Exposure Assessment, Indoor Air
DESCRIPTION: The purpose of the project is to design computer software to allow modeling of inhalation exposure and make use of the results of the perfluorocarbon tracer (PFT) data base, which contains air exchange and inzonal airflow data. Draft version of the software is completed. Upgrade of the software is underway.

CL-BIB-0439

TITLE: Guidelines for Collection of Data Pertaining to Consumer Exposure in Residential Settings
STATUS: Ongoing; report due FY 90
CONTACT: OTS/EED/EAB, Pat Kennedy (202) 382-3916
CAS NO: CL-IAP
CHEMICAL: INDOOR AIR POLLUTANTS
PROJECT TYPE: Exposure Assessment, Indoor Air
DESCRIPTION: The purpose of the project is to describe different approaches that may be used to assess exposure to toxic chemicals in indoor air in homes.

CL-BIB-0440

TITLE: Evaluation of Contaminant Migration in Indoor Air in Homes
STATUS: Ongoing; draft report due summer '88
CONTACT: OTS/EED/EAB, Pat Kennedy (202) 382-3916
CAS NO: CL-IAP
CHEMICAL: INDOOR AIR POLLUTANTS
PROJECT TYPE: Exposure Assessment, Indoor Air
DESCRIPTION: The purpose of the project is to improve methods for modeling exposure to contaminants in indoor air in homes.

CL-BIB-0445

TITLE: Chemical Analysis of Particulate Filters (Colorado)
STATUS: Ongoing; report due 1/90
CONTACT: EPA Region VIII, DeeWitt Baulch (303) 293-1761
CAS NO: CL-PAH, CL-DIESEL, 1634-04-4, 64-17-5, 8006-61-9
CHEMICAL: POLYCYCLIC AROMATIC HYDROCARBONS, DIESEL FUEL EMISSIONS, TERT-BUTYL METHYL ETHER, ETHANOL, GASOLINE
SOURCE: Automobiles
PROJECT TYPE: Source Assessment
DESCRIPTION: Analysis for polycyclic aromatic hydrocarbons will be conducted on filters collected from 20 vehicles representing three MOBILE3 classes. Each class was subjected to three different fuels, unleaded regular, 11% MTBE, and 10% ethanol blend (gasohol). Filters from 10 light/medium duty diesels will also be analyzed. These filters were subjected to two types of diesel fuel, "typical" and California low sulfur. Two sets of particulate filters were collected from each vehicle. One set is designated for elemental and organic carbon analysis. The second set is to be analyzed for gravimetric determinations and for organic speciation. The methodology from this project will be transferable to other air toxics programs in EPA Region VIII.

CL-BIB-0448

TITLE: General Quantitative Risk Assessment Guidelines for Noncancer Health Effects
STATUS: Ongoing
CONTACT: OHEA/ECAO-CIN, Michael Dourson (513) 569-7544
CAS NO: CL-VARIOUS
CHEMICAL: VARIOUS
PROJECT TYPE: Risk Assessment
DESCRIPTION: An Agency-wide work group reviewed health risk assessments for noncancer toxicity from OPP, OHEA, and ODW. Conflicting risk assessments were resolved and differences in approaches were reduced. A technical panel of the Risk Assessment Forum (RAF) was formed to develop guidelines based on the deliberations of this Agency-wide work group and to incorporate other Agency risk assessment techniques as well. A revised draft is being prepared incorporating review comments by the RAF. The proposed guidelines will be announced in the Federal Register.

CL-BIB-0449

TITLE: Chamber Studies Characterizing the Organic Emissions from Kerosene Space Heaters: Phase II
STATUS: Ongoing; report due 10/89
CONTACT: AEERL/CIAD/IAB, James White (919) 541-2851
CAS NO: CL-IAP, CL-VOC, CL-SVOC, 8001-20-6
CHEMICAL: INDOOR AIR POLLUTANTS, VOLATILE ORGANIC COMPOUNDS, SEMIVOLATILE ORGANIC COMPOUNDS, KEROSENE
SOURCE: Kerosene space heaters
PROJECT TYPE: Emission Factor, Indoor Air, Source Assessment
DESCRIPTION: The phased characterization of the particulate and organic emissions from unvented kerosene space heaters has been completed. (The emissions from 12 kerosene space heaters obtained from the Consumer Products Safety Commission were screened and reported in last year's Phase I study.) Four heaters were selected from Phase I for intensive characterization. These heaters cover a range of design types and Btu ratings. Measurments made during Phase II included aerosol mass via both personal pumps and PM-10 sampler, aerosol size distribution, particulate mutagenicity, and the classical combustion parameters. Volatile gases were collected in Summa canisters; semivolatile gases were collected in XAD.

CL-BIB-0451

TITLE: Sources of Fine Particle Organic Matter in Boise
STATUS: Ongoing; report due 1/90
CONTACT: AREAL/MRB, Charles Lewis (919) 541-3154
CAS NO: CL-ORGANIC, 7440-09-7, 7439-92-1, CL-WOOD
CHEMICAL: ORGANIC COMPOUNDS, POTASSIUM, LEAD POWDER, WOOD SMOKE
SOURCE: Automobiles, wood smoke
PROJECT TYPE: Ambient Monitoring, Emission Factor, Source Assessment
DESCRIPTION: In airsheds where atmospheric mass loadings are dominated by woodsmoke and mobile source emissions, extractable organic matter (EOM) generally constitutes 50% or more of the fine particle ambient mass concentration. It is also the portion of the ambient aerosol associated with mutagenicity. For both reasons, it is of interest to determine the percentage of EOM that is contributed by each source, as well as any other less obvious sources. In past IACP studies, a multiple linear regression approach, using Pb and K tracers for motor vehicle and wood smoke sources, respectively, has been very successful in the source apportionment of EOM (and also mutagenicity). However, since 1985, a significant change has occurred in Pb emissions of motor vehicles. New data will be used to evaluate the current viability of Pb as a tracer.

CL-BIB-0452

TITLE: Northeast Cooperative Woodstove Study - Phases II and III
STATUS: Ongoing; draft report due 7/89
CONTACT: AEERL/ATRD/ATCB, Robert McCrillis (919) 541-2733
CAS NO: CL-VARIOUS, CL-WOOD
CHEMICAL: VARIOUS, WOOD SMOKE
SOURCE: Woodstoves
PROJECT TYPE: Emission Factors, Indoor Air, Source Sampling
DESCRIPTION: This project followed the catalytic woodstove field performance and emission monitoring work, published as the Northeast Cooperative Woodstove Study, Volumes I and II. Design and emission criteria were developed to select stoves that work efficiently. Based on the criteria, stoves were selected for field trials.

CL-BIB-0454

TITLE: Particulate Matter-Organic Compounds Interactions on Municipal Incinerator Flyash
STATUS: Completed FY 89; final report due 5/89
CONTACT: AREAL/QAD/SMSB, John Margeson (919) 541-2848
CAS NO: CL-PM, CL-CARCIN, CL-ORGANIC
CHEMICAL: PARTICULATE MATTER, CARCINOGENS, ORGANIC COMPOUNDS
SOURCE: Municipal Incinerators
PROJECT TYPE: Source Sampling
DESCRIPTION: Flyash, a fine particulate effluent from municipal incinerators, consists of 70-95% inorganic material. The large surface area of the fine flyash from incineration allows adsorption and concentration of potentially mutagenic or carcinogenic polynuclear organic material (POM) on the particulate surface. The development of a laboratory-based gas chromatographic approach for evaluating the effects of compound/particle matter interaction using temperature and flow conditions that model particle and organic material collection in the Semi-VOST method were studied. The gas phase retention of selected organic compounds on the municipal waste incineration flyash were examined.

CL-BIB-0455

TITLE: Field Test Evaluation of a Methodology for Measuring Emissions of Selected Toxic Metals from Stationary Sources
STATUS: Complete; report due FY 89
CONTACT: AREAL/MRDD, Thomas Ward (919) 541-3788
CAS NO: 7439-92-1, 7440-66-6, 7723-14-0, 7440-47-3, 7440-50-8, 7440-02-2, 7439-96-5, 7440-43-9, 7782-49-2, 7440-38-2, 7439-97-6, 7440-41-7, 7440-28-0, 7440-22-4, 7440-36-0, 7440-39-3
CHEMICAL: LEAD, ZINC, PHOSPHORUS, CHROMIUM, COPPER, NICKEL, MANGANESE, CADMIUM, SELENIUM, ARSENIC, MERCURY, BERYLLIUM, THALLIUM, SILVER, ANTIMONY, BARIUM
SOURCE: Municipal Solid Waste Incinerators
PROJECT TYPE: Source Sampling
DESCRIPTION: A multitask research effort has been implemented to develop a validated sampling and analytical technique to measure multiple metals in the emissions from stationary sources. The methodology is designed to measure 16 toxic metals. The sampling method was formulated based upon extensive literature and laboratory studies. The results of these studies indicate that the desired design of the sampling train is a modified EPA Method 5 train. This work was presented at the 1989 APCA/EPA Symposium held in Raleigh, NC.

CL-BIB-0460

TITLE: The Particle Total Exposure Assessment Methodology
STATUS: Ongoing; complete FY 90
CONTACT: AREAL/EARD/EARB, Russell Wiener (919) 541-1910
CAS NO: CL-METAL, CL-SVOC, 54-11-5, CL-PM, CL-IAP
CHEMICAL: METALLIC COMPOUNDS, SEMIVOLATILE ORGANIC COMPOUNDS, L-NICOTINE, PARTICULATE MATTER, INDOOR AIR POLLUTANTS
PROJECT TYPE: Ambient Monitoring, Exposure Assessment, Indoor Air, Source Assessment
DESCRIPTION: This program is currently being developed by EPA to measure and evaluate personal exposure to aerosols. The level of human exposure of particles and the related exposure to sources of aerosol matter is being estimated. This program follows a sequence of programs designed to estimate everyday exposures to other potential hazards such as volatile organic compounds. The program is focused on specific size fractions of aerosol particles analyzed for at least metals, nicotine, and as resources permit, semivolatile organics. A field study will be conducted to help determine the indoor aerosol particle size distribution and concentration spectrum. Portions of this work were presented at the 1989 APCA/EPA Symposium on the Measurement of Toxic and Related Air Pollutants.

CL-BIB-0467

TITLE: GC/MS Analysis of Woodstove and Oil-fired Home Heating Unit Emissions and Ambient Samples from Impacted Areas
STATUS: Ongoing
CONTACT: AEERL/ATRD/IPB, Raymond Steiber (919) 541-2288
CAS NO: CL-PAH, CL-IAP, CL-METOXBZ
CHEMICAL: POLYCYCLIC AROMATIC COMPOUNDS, INDOOR AIR POLLUTANTS, METHOXYBENZENE COMPOUNDS
SOURCE: Woodstoves
PROJECT TYPE: Ambient Monitoring, Indoor Air, Source Assessment
DESCRIPTION: GC/MS analyses have been conducted on integrated sets of samples acquired to assess the impact of woodstoves and oil-fired home heating units on ambient air quality. The sets include stove or home heating unit emissions, ambient air, and samples from residences both with and without woodstoves or oil-fired heating units.

CL-BIB-0469

TITLE: Indoor Dispersion/Ventilation Model
STATUS: Ongoing: complete 9/88
CONTACT: AREAL/ASMD/AMB, John Irwin (919) 541-1323
CAS NO: CL-IAP, CL-VARIOUS
CHEMICAL: INDOOR AIR POLLUTANTS, VARIOUS
PROJECT TYPE: Indoor Air, Dispersion Modeling
DESCRIPTION: This project will develop a user-friendly PC interface for the indoor air dispersion model (CONTAM 87).

CL-BIB-0471

TITLE: Low Cost Personal Monitoring Devices for Indoor Air
STATUS: Ongoing
CONTACT: AREAL/MDB/MMS, James Mulik (919) 541-3067
CAS NO: CL-VOC, 50-00-0, 54-11-5, 10102-44-0, CL-IAP
CHEMICAL: VOLATILE ORGANIC COMPOUNDS, FORMALDEHYDE, L-NICOTINE, NITROGEN DIOXIDE, INDOOR AIR POLLUTANTS
PROJECT TYPE: Exposure Assessment, Indoor Air
DESCRIPTION: The purpose of this project is to develop and evaluate low cost, comfortable personal monitoring and sampling devices that can be worn during normal activities.

CL-BIB-0472

TITLE: Compendium of Indoor Air Quality Measurement Methods
STATUS: Ongoing: complete 10/88
CONTACT: ORD/EMSL-RTP, Ross Highsmith (919) 541-7828
CAS NO: CL-VOC, 54-11-5, CL-IAP
CHEMICAL: VOLATILE ORGANIC COMPOUNDS, L-NICOTINE, INDOOR AIR POLLUTANT
PROJECT TYPE: Exposure Assessment, Indoor Air
DESCRIPTION: The purpose of this project is to compile the most commonly used IAQ measurement methods for technical guidance documents. Nicotine and VOCs are in review now, with four other methods scheduled for completion in 1988. The methods are established, standard EPA methods and the final four will be assembled into one volume.

CL-BIB-0473

TITLE: Analysis of Semivolatile Compounds in Passive Air Samples by On-Line Supercritical Fluid Extraction/Gas Chromatography
STATUS: Ongoing: complete 11/89
CONTACT: ORD/EMSL-RTP, Nancy Wilson (919) 541-4723
CAS NO: CL-SVOC, CL-SOLVENT
CHEMICAL: SEMIVOLATILE ORGANIC COMPOUNDS, SOLVENTS
PROJECT TYPE: Ambient Monitoring
DESCRIPTION: On-line supercritical fluid extraction/gas chromatography (SFE/GC) provides an important alternative to Soxhlet extraction for the recovery of semivolatile organic compounds from adsorbents. The on-line extraction method concentrates the entire sample on the head of the GC column for analysis, avoiding the large dilution inherent in Soxhlet extraction. An on-line SFE/GC system has been constructed and tested for use with Tenax(TM)-filled passive air samplers. Optimization of extraction conditions, including the use of extraction fluids modified with organic solvents, has been investigated.

CL-BIB-0474

TITLE: Temporal Profile Analysis
STATUS: Ongoing
CONTACT: AREAL/MDB/MMS, William McClenny (919) 541-3158
CAS NO: CL-VOC
CHEMICAL: VOLATILE ORGANIC COMPOUNDS
PROJECT TYPE: Ambient Monitoring, Indoor Air
DESCRIPTION: Using new methodology for frequent sampling and analysis of volatile organics, essentially real-time monitoring for a large number of compounds is now possible. This technique reconciles modeling and on-site monitoring efforts, using emission inventories to identify local sources.

CL-BIB-0475

TITLE: Study on the Formation of Aerosols and Particulates from the Incineration of Metals
STATUS: Ongoing
CONTACT: AEERL/CIAD/CRB, William Linak (919) 541-5792
CAS NO: CL-PM, CL-METAL
CHEMICAL: PARTICULATE MATTER, METALLIC COMPOUNDS
SOURCE: Incinerators
PROJECT TYPE: Source Sampling
DESCRIPTION: The purpose of this project is to study the formation and combustion formation of submicroaerosols and particulates from the incineration of metals.

CL-BIB-0476

TITLE: Indoor Air Pollution Mitigation Technology Research
STATUS: Ongoing
CONTACT: AEERL/CIAD/IAB, Leslie Sparks (919) 541-2458
CAS NO: CL-ORGANIC, CL-PM, CL-IAP
CHEMICAL: ORGANIC COMPOUNDS, PARTICULATE MATTER, INDOOR AIR POLLUTANTS
PROJECT TYPE: Control Technology, Indoor Air
DESCRIPTION: The overall concern is with organic and particulate indoor air pollutants, focusing particularly on air cleaners and on determining air exchange rates. A complete evaluation of the efficiency devices available for collection of particles and organic vapors will be done. Improved designs will be developed and tested. Some general indoor air modeling work is also being performed.

CL-BIB-0477

TITLE: Dilution Sampling System
STATUS: Ongoing
CONTACT: AEERL/CIAD/CRB, Paul Lemieux (919) 541-0962
CAS NO: CL-VARIOUS, 88-85-7, CL-HERB, CL-HAZWAST, CL-PEST
CHEMICAL: HAZARDOUS AIR POLLUTANTS, 6-SEC-2,4-DINITROBUTYL-PHENOL, HERBICIDES, HAZARDOUS WASTES, PESTICIDES
SOURCE: Municipal Waste Combustors, Hazardous Waste Combustors
PROJECT TYPE: Health Assessment, Source Sampling
DESCRIPTION: The field team will collect samples from municipal waste combustion stacks (in-house) and from Dinoseb (insecticide/herbicide/hazardous waste) combustion. The sampler simulates what happens to emissions as they mix with ambient air and cool to ambient temperatures, and also analyzes the constitutents. Bioassays will also be performed.

CL-BIB-0480

TITLE: Preliminary Evaluation of Test Methods for Volatile Organics in Hazardous Waste
STATUS: Ongoing
CONTACT: OAQPS/TSD/EMB, Gary McAlister (919) 541-2237
CAS NO: 75-09-2, 78-93-3, 71-36-3, 110-86-1, 108-88-3, 540-84-1, 108-90-7, 108-95-2, 91-20-3
CHEMICAL: METHYLENE CHLORIDE, 2-BUTANONE, 1-BUTANOL, PYRIDINE, TOLUENE, ISOOCTANCE, CHLOROBENZENE, PHENOL, NAPHTHALENE
SOURCE: Hazardous Waste
PROJECT TYPE: Source Sampling
DESCRIPTION: Four test methods for determining the volatile emission potential of hazardous waste have been evaluated for predicting whether pretreatment of a waste is needed to remove volatile organic compounds prior to disposal. The test methods were: equilibrium headspace analysis, elevated temperature purge and trap, batch steam distillation and gravimetric purge and trap. Each test method was evaluated by preparing synthetic wastes that approximated the chemical and physical properties of six different waste categories. Recovery profiles, which are a measure of the recovery/removal efficiency of a test method, were used to compare one method to another. Draft methods have been prepared. Round-robin studies of the methods will be conducted.

CL-BIB-0481

TITLE: Quality Assurance for Measurement of Variables When Using Proposed Method 5G for Wood Heater Certification Testing
STATUS: Ongoing; report due 5/89
CONTACT: AREAL/MRDD, Thomas Ward (919) 541-3788
CAS NO: CL-PM, CL-WOOD
CHEMICAL: PARTICULATE MATTER, WOOD SMOKE
SOURCE: Wood Heaters
PROJECT TYPE: New Source Performance Standards, Source Sampling
DESCRIPTION: The EPA has proposed New Source Performance Standards (NSPS) for particulate emissions from wood-burning heaters which require that new wood heaters be tested to demonstrate compliance with the regulation's emission limits. This project evaluates the sources of potential error when using EPA Method 5G for the certification and auditing of wood-burning heaters.

CL-BIB-0484

TITLE: Air Emissions from Hazardous Waste Stabilization
STATUS: Ongoing
CONTACT: ORD/DEETD/RREL-CIN, Paul De Percin (513) 569-7797
CAS NO: CL-VOC
CHEMICAL: VOLATILE ORGANIC COMPOUNDS
SOURCE: Hazardous Waste
PROJECT TYPE: Emission Factor, Control Technology
DESCRIPTION: Volatile organic compound (VOC) emissions from the stabilization process of hazardous wastes and from the stabilized wastes themselves were measured. Parametric studies measuring the VOC emissions from two types of synthetic hazardous wastes, which were solidified with two different types of binders under various conditions were studied. A Control Technology Guideline is in preparation. Field testing of commercial systems will be carried out in FY 89.

CL-BIB-0485

TITLE: Products of Incomplete Combustion (PICs) in Rotary Kiln Simulator
STATUS: Ongoing
CONTACT: AEERL/CIAD/CRB, Paul Lemieux (919) 541-0962
CAS NO: CL-VOC, CL-VARIOUS
CHEMICAL: VOLATILE ORGANIC COMPOUNDS, VARIOUS
SOURCE: Waste Incineration
PROJECT TYPE: Source Sampling
DESCRIPTION: The project examines the emission of products of incomplete combustion from simulated waste incineration in a batch mode in a rotary kiln. Currently, studies on temporary oxygen enrichment to minimize transient puffs are being conducted. This is a cooperative agreement with the University of Arizona, which is doing fundamental mathematical modeling.

CL-BIB-0488

TITLE: A Study of Products from the Photooxidation of Toluene Using MS/MS Analysis
STATUS: Ongoing; report due 10/89
CONTACT: AREAL/CPCD, Larry Cupitt (919) 541-2878
CAS NO: 108-88-3, 11104-93-1
CHEMICAL: TOLUENE, NITROGEN OXIDES
PROJECT TYPE: Source Sampling
DESCRIPTION: A 5.1 ppm toluene/0.9 ppm NOx mixture was irradiated in a 22.7 m3 Teflon smog chamber operated in a dymanic mode. The effluent from this mixture was passed (at 150 L/min) to a triple quadrupole MS/MS operated in an atmospheric pressure ionization mode. Many of the ring-fragmentation products were identified using this technique and estimates of their concentration were made using structurally similar standards. Several major organic products were also quantitated using GC and HPLC. Under the conditions employed, approximately half of the reacted carbon could be accounted for by the observed oxygenated products. Mechanisms for several of the product paths will be examined.

CL-BIB-0490

TITLE: Monitoring Ambient Air for Dioxins
STATUS: Ongoing
CONTACT: EPA Region VII, Billy Fairless (919) 236-2800
CAS NO: CL-DIOXIN
CHEMICAL: DIOXINS
SOURCE: Superfund Sites
PROJECT TYPE: Ambient Monitoring
Many of the Superfund sites that contain dioxin contamination are located in Missouri. EPA Region VIII started cleanup operations at these sites several years ago. We expect the process to continue for many years into the future. Procedures developed primarily by others were used to monitor ambient air during the initial phases of cleanup operations. These procedures have continued to be evaluated and improved. Monitoring procedures, reasons why changes have been made in the procedures, estimates of data quality and monitoring costs, and areas where additional improvements might be feasible in the future are considered.

CL-BIB-0497

TITLE: Baltimore Total Exposure Assessment Methodology (TEAM) VOC Study
STATUS: Ongoing; report in progress
CONTACT: ORD/AREAL, William Nelson (919) 541-3184
CAS NO: CL-VOC
CHEMICAL: VOLATILE ORGANIC COMPOUNDS
PROJECT TYPE: Exposure Assessment, Indoor Air, Ambient Monitoring
DESCRIPTION: The Baltimore area was chosen to apply the TEAM approach in a metropolitan area not having major petrochemical industry facilities, as did previously-studied CA and NJ areas. Selection of this new study area provided an opportunity for more extensive application of the canister sampler for fixed indoor and outdoor air samples. The main objectives were to estimate population exposure to selected VOCs, compare indoor, outdoor, and personal exposures, and to coordinate the exposure monitoring data collection with the IEMP field study. Final results will include determination of the impact of outdoor air on indoor air and personal exposure. Models will be developed to describe these relationships.

CL-BIB-0498

TITLE: New Studies of Population Exposure to VOCs and Major Sources of Exposure
STATUS: Ongoing; reports in progress
CONTACT: ORD/AREAL, William Nelson (919) 541-3184
CAS NO: CL-VOC, 8006-61-9, 106-46-7, CL-HCARB, 127-18-4, CL-ETS
CHEMICAL: VOLATILE ORGANIC COMPOUNDS, GASOLINE VAPORS, AROMATIC HYDROCARBONS, TETRACHLOROETHYLENE, PARA-DICHLORO-BENZENE, ENVIRONMENTAL TOBACCO SMOKE
PROJECT TYPE: Exposure Assessment, Indoor Air, Source Sampling
DESCRIPTION: The EPA has carried out two studies of human exposure to VOCs. A study in Los Angeles, CA, investigated personal exposures, indoor and outdoor air concentrations, and concentrations in exhaled breath of 25 target chemicals for 50 residents selected using a probability-based sampling procedure. The second study investigated suspected sources of several target chemicals in 11 homes in Bayonne and Elizabeth, NJ. Attached garages as a source of gasoline vapors, smoking as a source of aromatic hydrocarbons and respirable particulates, wearing and storing dry-cleaned clothes as a source of tetrachloroethylene, and air fresheners and moth crystals as a source of para-dichlorobenzene were studied.

CL-BIB-0499

TITLE: Effectiveness of Various Surface Coatings and Concrete Blocks in Reducing Low Pressure-Driven Influx of Radon Through Concrete Block Basement Walls
STATUS: Started FY 87; ongoing
CONTACT: AEERL/CIAD/IAB, John Ruppersberger (919) 541-2432
CAS NO: 10043-92-2
CHEMICAL: RADON
PROJECT TYPE: Control Technology, Indoor Air
DESCRIPTION: In the first part of this study, six coatings and several types of concrete blocks were evaluated for their effect in preventing/deterring the passage of radon into homes. All the coatings were found effective if applied carefully. A large variability was found between the types of concrete blocks. A report on these results is in peer review. The project is continuing to study the variability of concrete blocks to make recommendations for their use in radon-prone areas.

CL-BIB-0503

TITLE: Survey of Chlorofluorocarbon Destruction Techniques
STATUS: Started 3/88; report due FY 89
CONTACT: AEERL/ATRD/IPB, Dale Harmon (919) 541-2429
CAS NO: CL-CFC
CHEMICAL: CHLOROFLUOROCARBONS
PROJECT TYPE: Control Technology
DESCRIPTION: The objective of the project is to establish a panel of experts to identify possible destruction techniques applicable to chlorofluorocarbon control.

CL-BIB-0504

TITLE: Investigation of the Blaze Icing KEJ1101 (Catalytic Woodstove) Operating Characteristics
STATUS: Started 12/9/87; draft report complete
CONTACT: AEERL/ATRD/ATCB, Robert McCrillis (919) 541-2733
CAS NO: CL-WOOD
CHEMICAL: WOOD SMOKE
SOURCE: Woodstove
PROJECT TYPE: Indoor Air, Source Sampling, Source Assessment
DESCRIPTION: After three field studies and one laboratory study, this particular model seems to have the tendency toward fouling in the damper area. The current project is investigating this to determine the reason for this occurrence.

CL-BIB-0507

TITLE: Emissions Data Base for Indoor Air Sources
STATUS: Ongoing; complete 8/89
CONTACT: AEERL/CIAD/IAB, James White (919) 541-1189
CAS NO: CL-IAP
CHEMICAL: INDOOR AIR POLLUTANTS
PROJECT TYPE: Emission Factor, Indoor Air
DESCRIPTION: Data have been collected during this project from the literature and in-house EPA projects on indoor air. Both emission rates from various sources and emission factors are presented. The data base will be compatible with an IBM AT and DOS. Periodic updates are planned, as well as the possible inclusion of Canadian data. These data will arise from the literature, Agency research, and other users' research. Caveat: no quality assurance has been performed on the data. The software will be ready for distribution in August 1989.

CL-BIB-0509

TITLE: Design Change of NO2 Electrochemical Personal Exposure Monitor (PEM)
STATUS: Ongoing
CONTACT: AREAL/MDB/MMS, James Mulik (919) 541-4459
CAS NO: 10102-44-0
CHEMICAL: NITROGEN DIOXIDE
PROJECT TYPE: Indoor Air
DESCRIPTION: In this project, engineering and design changes will be examined for the NO2 Electrochemical PEM to consolidate the data logger, battery pack, and electrochemical sensor into one compact single unit with the ability to data log concentration in real time for later handling. In addition, sensors and circuit boards will be fabricated for the unit and operational software will be selected and implemented.

CL-BIB-0513

TITLE: Chemical Ionization Mass Spectrometry for Trace-Level Determination of Ambient Polar Volatile Organic Compounds
STATUS: Ongoing
CONTACT: AREAL, Joachim Pleil (919) 541-4680
CAS NO: CL-VOC
CHEMICAL: VOLATILE ORGANIC COMPOUNDS
PROJECT TYPE: Indoor Air
DESCRIPTION: No sampling/analytical technique currently exists in the Agency for unambiguous determination of ambient levels of a broad range of polar VOCs. This is primarily due to the difficulty in sampling and analyzing these compounds. This project will examine the feasibility of using a Finnegan MAT ITD with the CI source option, recently available commercially for measuring health-related polar VOCs. This equipment is expected to be both sensitive (picograms) and specific (GC-MS), a tool around which methodology can be developed.

CL-BIB-0515

TITLE: Field Evaluation of Sampling and Analysis for Organic Pollutants in Indoor Air
STATUS: Ongoing
CONTACT: AREAL, Joachim Pleil (919) 541-4680
CAS NO: CL-PAH, 54-11-5
CHEMICAL: POLYCYCLIC AROMATIC COMPOUNDS, NICOTINE
PROJECT TYPE: Indoor Air, Toxicity Testing
DESCRIPTION: To evaluate field sampling and analysis for organic pollutants in indoor air, this project will develop a study plan, perform a winter field study, analyze sample extracts, prepare extracts for microbioassay, and conduct a statistical analysis of the analytical and biological data.

CL-BIB-0516

TITLE: Chemical Fractionation and Analysis of China Coal Combustion Emission Samples
STATUS: Ongoing
CONTACT: AREAL, Joachim Pleil (919) 541-4680
CAS NO: CL-CARCIN
CHEMICAL: CARCINOGENS
PROJECT TYPE: Indoor Air, Toxicity Testing
DESCRIPTION: In this project, a cyano semi-prep HPLC column used to fractionate a smoky coal sample extract will be evaluated, bioassay-directed HPLC will be performed, and chemicals in the sample extract will be evaluated in an attempt to identify unknown mutagens or carcinogens.

CL-BIB-0517

TITLE: A High-Efficiency, High-Volume Compound Annular Denuder Sampler for Phase-Distributed Semi-Volatile Organic Chemicals
STATUS: Ongoing
CONTACT: AREAL, Joachim Pleil (919) 541-4680
CAS NO: CL-SVOC
CHEMICAL: SEMI-VOLATILE ORGANIC COMPOUNDS
PROJECT TYPE: Ambient Monitoring
DESCRIPTION: The objectives of this project are to develop and evaluate a high-volume compound annular denuder (HVCAD) sampler for phase-distributed organics; to determine its performance under field conditions; and to utilize this sampler to expand the existing data base on phase distribution of semi-volatile organic chemicals (SVOC).

CL-BIB-0518

TITLE: Personal Sampling Device (PSD) Modification and Analysis
STATUS: Ongoing
CONTACT: AREAL, Joachim Pleil (919) 541-4680
CAS NO: CL-VOC
CHEMICAL: VOLATILE ORGANIC COMPOUNDS
PROJECT TYPE: Source Sampling
DESCRIPTION: In this project, the current version of the SIS PSD will be evaluated for its potential conversion to a low-rate PSD, and standard SIS PSDs will be cleaned and then analyzed for VOCs in support of an intercomparison study being conducted at Yale University.

CL-BIB-0519

TITLE: Development of a Mass Spectral Identification Scheme for Electron Impact Spectra of Volatile Compounds
STATUS: Ongoing
CONTACT: AREAL, Joachim Pleil (919) 541-4680
CAS NO: CL-VOC
CHEMICAL: VOLATILE ORGANIC COMPOUNDS
PROJECT TYPE: Ambient Monitoring
DESCRIPTION: In this project, the Hewlett Packard's (HP's) PBM mass spectral library searching software that is currently used with HP's mass selective detector (MSD) system will be evaluated. A list of volatile organic compounds that occur in urban air will be evaluated and organized by class. The PBM library software will be challenged with mixtures containing known compounds to demonstrate the effectiveness of the searching technique. If the searching technique is proven to be more effective than the current library searching capabilities on the MSD system, then new software will be installed into the EMSL system.

CL-BIB-0520

TITLE: VOCs Samplers for Superfund Site Applications
STATUS: Ongoing
CONTACT: AREAL, Joachim Pleil (919) 541-4680
CAS NO: CL-VOC
CHEMICAL: VOLATILE ORGANIC COMPOUNDS
SOURCE: Superfund Sites
PROJECT TYPE: Ambient Monitoring, Source Sampling
DESCRIPTION: In this project, several factors concerning whole-air sampling near Superfund sites will be studied. These include wind speed and direction dependent sampling, spatial integrative sampling, time-resolved sampling, and in-field preconcentration sampling.

CL-BIB-0521

TITLE: Statistical Comparison of Results of Two Indoor Air Pilot Studies
STATUS: Ongoing
CONTACT: AREAL, Joachim Pleil (919) 541-4680
CAS NO: CL-PAH
CHEMICAL: POLYCYCLIC AROMATIC HYDROCARBON
PROJECT TYPE: Indoor Air
DESCRIPTION: In this project, the indoor PAH and PAH derivatives from two pilot field studies will be compared to determine whether the results from the two studies are consistent.

CL-BIB-0522

TITLE: Design and Preliminary Evaluation of a Low Flow Rate Indoor Air Sampler
STATUS: Ongoing
CONTACT: AREAL, Joachim Pleil (919) 541-4680
PROJECT TYPE: Indoor Air, Source Sampling
DESCRIPTION: The purpose of this project is to design, construct, and perform the initial evaluation of an indoor air sampler which can operate unattended in a residence for up to one week at a flow rate of 20 lpm, collecting samples on a filter and/or XAD sorbent trap and accommodate a small denuder.

CL-BIB-0523

TITLE: Field Evaluation of Methodology for Semi-Volatile Compounds
STATUS: Ongoing
CONTACT: AREAL, Joachim Pleil (919) 541-4680
CAS NO: CL-SVOC, CL-VOC, CL-PAH, 10102-44-0
CHEMICAL: SEMI-VOLATILE ORGANIC COMPOUNDS, VOLATILE ORGANIC COMPOUNDS, POLYCYCLIC AROMATIC HYDROCARBONS, NITROGEN DIOXIDE
PROJECT TYPE: Indoor Air, Source Sampling, Source Assessment
DESCRIPTION: The objective of this project is to utilize the EPA prototype indoor sampler to further investigate the effects of normal residential heating and cooking modes on indoor concentrations of selected volatile organic compounds, PAH, and PAH derivatives. In addition, indoor NO2 is being evaluated as a potential contributor to indoor nitro-PAH levels.

CL-BIB-0524

TITLE: Multi-Sorbent Preconcentrator
STATUS: Ongoing
CONTACT: AREAL, Joachim Pleil (919) 541-4680
CAS NO: CL-VOC
CHEMICAL: Ongoing
PROJECT TYPE: Source Sampling
DESCRIPTION: The purpose of this project is to eliminate the need for liquid nitrogen during on-site sampling and analysis, thereby making the use of EPA systems more practical in field and stationary site operation. As a result, compound resolution at the earlier retention times is lost; therefore, this project will also examine the use of new gas chromatographic column designs that have thick stationary phase coatings with extra retention capacity.

CL-BIB-0525

TITLE: Real-Time Formaldehyde Monitor
STATUS: Ongoing
CONTACT: AREAL, Joachim Pleil (919) 541-4680
CAS NO: 50-00-0
CHEMICAL: FORMALDEHYDE
PROJECT TYPE: Source Sampling, Ambient Monitoring
DESCRIPTION: The objective of this project will be to develop real-time monitors for formaldehyde in air.

CL-BIB-0526

TITLE: Development of a Polar VOC Detector Based on Photo-Induced Nucleation
STATUS: Ongoing
CONTACT: AREAL, Joachim Pleil (919) 541-4600
CAS NO: CL-VOC, 50-00-0, 75-07-0, 98-95-3, 529-20-4
CHEMICAL: VOLATILE ORGANIC COMPOUNDS, FORMALDEHYDE, ACETALDEHYDE, NITROBENZENE, TOLUALDEHYDE,O-
PROJECT TYPE: Source Sampling
DESCRIPTION: The project objective is to demonstrate the feasibility of application of the process of photo-induced nucleation (PIN) as a gas chromatographic detector for selected polar organics. Specific goals are to: (1) Demonstrate that a flow version of a diffusion cloud chamber can be coupled to a GC, (2) Demonstrate reliable detection and quantification of GC effluents resulting from typical ambient air samples, (3) Determine the useful range of applicability of the detector and the associated linearity of response, (4) Determine the PIN efficiency of formaldehyde, acetaldehyde, nitrobenzene and tolualdehyde.

CL-BIB-0528

TITLE: The Design and Installation of a Passive Radon Mitigation System
STATUS: Started 1/25/88; ongoing
CONTACT: AEERL/CIAD/IAB, Mike Osbourne (919) 541-4113
CAS NO: 10043-92-2
CHEMICAL: RADON
PROJECT TYPE: Indoor Air, Control Technology
DESCRIPTION: A passive mitigation system will be installed in the crawl space of a house located in Nashville, TN. The effectiveness of the device will be evaluated during this study.

CL-BIB-0530

TITLE: Preparation of a Radon/New Construction Report
STATUS: Started 4/88; ongoing
CONTACT: AEERL/CIAD/IAB, Mike Osbourne (919) 541-4113
CAS NO: 10043-92-2
CHEMICAL: RADON
PROJECT TYPE: Indoor Air, Regulatory Development Guidance
DESCRIPTION: The objective is to develop a manual that provides builders with information on a variety of techniques that are expected to be effective in decreasing potential radon accumulation in houses. In addition, legislators, regulators and residential building code writers may choose to evaluate radon-resistant techniques for potential application to or modification of existing regulations or codes applicable to residential construction. The second edition of the manual is in progress.

CL-BIB-0533

TITLE: Evaluation of Canister-Based Sampling in the TAMS Network
STATUS: Ongoing
CONTACT: AREAL, Joachim Pleil (919) 541-4680
CAS NO: CL-VOC
CHEMICAL: VOLATILE ORGANIC COMPOUNDS
PROJECT TYPE: Ambient Monitoring, Source Sampling
DESCRIPTION: In this project, 10 TAMS field monitoring stations (3 each in Houston, Boston, and Chicago; 1 in Seattle) will be provided with a clean evacuated canister. Also, 5 clean Tenax tubes will be provided only to the Houston Site #2. These field samples will be analyzed by GC/MSD for 41 toxic organic compounds. The resulting analytical and sampling data will be reported monthly to EPA in both hard copy and floppy disk format.

CL-BIB-0534

TITLE: Compilation and Evaluation of Air Toxics Monitoring Data in New England
STATUS: Ongoing; complete FY 89
CONTACT: EPA Region I, Norm Anderson (617) 565-3232
CAS NO: CL-VARIOUS
CHEMICAL: VARIOUS
PROJECT TYPE: Ambient Monitoring
DESCRIPTION: This project is still in the development phase. The goals of the project are to identify ambient air quality studies for air toxics in EPA Region I, to describe the studies in terms of purpose, protocol and results, to evaluate their results, and to determine what conclusions can be drawn from them. Whenever possible, a determination of health risks will be made.

CL-BIB-0535

TITLE: Madison Avenue Formaldehyde Study
STATUS: Started 1/89; complete 4/90
CONTACT: EPA Region II, Rudy Kapichek (212) 264-2517
CAS NO: 50-00-0, CL-VOC, 67-56-1
CHEMICAL: FORMALDEHYDE, VOLATILE ORGANIC COMPOUNDS, METHANOL
SOURCE: Intercity Passenger Transportation
PROJECT TYPE: Ambient Monitoring
DESCRIPTION: The purpose of this study is to measure formaldehyde and VOC concentrations at street level sites and other sites in New York City in order to establish baselines prior to the large-scale introduction of methanol buses, which emit formaldehyde.

CL-BIB-0536

TITLE: Analysis of Non-Methane Organic Compounds (NMOC) Canisters for Selected Organic Compounds by GC/MSD
STATUS: Started FY 88; complete FY 89
CONTACT: EPA Region III, Robert O'Melia (301) 631-3285
CAS NO: CL-NMHC, 71-43-2, 56-23-5, 67-66-3, 75-09-2, 79-01-6
CHEMICAL: NON-METHANE HYDROCARBONS, BENZENE, CARBON TETRACHLORIDE, CHLOROFORM, METHYLENE CHLORIDE, TRICHLOROETHYLENE
PROJECT TYPE: Ambient Monitoring
DESCRIPTION: During the summers of 1987 and 1989, ambient air samples were collected in stainless steel SUMMA polished canisters at seven sites in Region III. During 1987, only total non-methane organic compound analyses as ppmv carbon were conducted. In 1988, analyses by GC/MSD of 10 specific compounds, including benzene, chloroform, carbon tetrachloride, trichloroethylene, and methylene chloride, were added to the program.

CL-BIB-0537

TITLE: Evaluation of Methylene Chloride Emissions from a Pharmaceutical Facility
STATUS: Final report in progress
CONTACT: EPA Region IV, Sharon Porter (404) 347-2864
CAS NO: 75-09-2, CL-PHARM
CHEMICAL: METHYLENE CHLORIDE, PHARMACEUTICALS
SOURCE: Pharmaceutical Industry
PROJECT TYPE: Control Technology, Dispersion Modeling, Exposure Assessment, Source Assessment
DESCRIPTION: This is a high risk point source project to evaluate methylene chloride emissions from a pharmaceutical company in Georgia. The project involves an initial inspection of the facility, followed by dispersion modeling, human exposure modeling, and an assessment of control alternatives.

CL-BIB-0538

TITLE: Evaluation of Ethylene Oxide Emissions from an Artificial Kidney Dialysis Machine Production Facility
STATUS: Ongoing
CONTACT: EPA Region IV, Sharon Porter (404) 347-2864
CAS NO: 75-21-8
CHEMICAL: ETHYLENE OXIDE
SOURCE: Artificial Kidney Dialysis Machine Industry
PROJECT TYPE: Control Technology, Dispersion Modeling, Exposure Assessment, Source Assessment
DESCRIPTION: This is a high risk point source project to evaluate ethylene oxide emissions from an artificial kidney dialysis machine production facility in Florida. Initial inspection of the facility has been completed. This will be followed by dispersion modeling, human exposure modeling, and an assessment by control alternatives.

CL-BIB-0539

TITLE: Evaluation of 1,3-Butadiene Emissions from a Styrene-Butadiene Latex Production Facility Before and After Controls
STATUS: Complete 1/90
CONTACT: EPA Region IV, Sharon Porter (404) 347-2864
CAS NO: 106-99-0, 100-42-5, 9003-53-6
CHEMICAL: 1,3-BUTADIENE, STYRENE, STYRENE POLYMERS
SOURCE: Styrene-Butadiene Latex Production
PROJECT TYPE: Control Technology, Dispersion Modeling, Exposure Assessment, Source Assessment
DESCRIPTION: This is a two-part project. Part One involves performing dispersion and human exposure modeling to establish a baseline for 1,3-butadiene emissions at a styrene-butadiene latex company at Dalton, Georgia. In Part Two, control equipment will be installed, stack testing will be performed, and the human exposure model will be re-run.

CL-BIB-0540

TITLE: Scoping Study for Deposition Modeling of Entire Great Lakes
STATUS: Ongoing
CONTACT: EPA Region V, Mardi Klevs (312) 886-6054
CAS NO: CL-VARIOUS
CHEMICAL: VARIOUS
PROJECT TYPE: Dispersion Modeling
DESCRIPTION: This project will examine data bases and tools for modeling to evaluate various approaches to deposition modeling and to identify resource needs and their availability.

CL-BIB-0541

TITLE: 1985 Emissions Deposition Mo...ing of Air Toxics in Lake Michigan Region
STATUS: Ongoing
CONTACT: EPA Region V, Mardi Klevs (312) 886-6054
CAS NO: CL-VARIOUS
CHEMICAL: VARIOUS
PROJECT TYPE: Dispersion Modeling, Emission Factors
DESCRIPTION: An emissions inventory will be developed for about 50 air toxic chemicals for consolidated metropolitan areas in Wisconsin, Illinois, Indiana, and Michigan. Deposition modeling will be conducted on a screening level.

CL-BIB-0542

TITLE: Great Lakes Transboundary Air Toxics Project
STATUS: Started 7/88; complete 8/89
CONTACT: EPA Region V, Pam Blakely (312) 886-1767
CAS NO: CL-VARIOUS
CHEMICAL: VARIOUS
SOURCE: Point, Area, and Mobile Sources
PROJECT TYPE: Dispersion Modeling, Emission Factors, Risk Assessment
DESCRIPTION: Emissions of 58 selected pollutants from point, area, and mobile sources will be assessed over a 50-kilometer radius in the Lake St. Claire area. The four-component study includes emissions inventory, dispersion modeling, risk assessment, and deposition modeling. The project is a cooperative effort between Michigan and Canada.

CL-BIB-0543

TITLE: Locating and Estimating Air Emissions from Fossil Fuel Combustion
STATUS: Ongoing; report due 5/89
CONTACT: OAQPS/ESD/PAB, Dallas Safriet (919) 541-5371
CAS NO: CL-VARIOUS
CHEMICAL: VARIOUS
SOURCE: Fossil Fuel Combustion
PROJECT TYPE: Source Assessment
DESCRIPTION: This project will result in a document that is designed to assist Federal, State, and local air pollution agencies in inventorying air emissions of potentially toxic substances. It is one of a series the EPA is preparing to compile information on sources and emissions of these pollutants. Specifically, this document deals with emissions from fossil fuel combustion.

CL-BIB-0544

TITLE: Locating and Estimating Air Emissions from Sources of Chromium
STATUS: Ongoing; report due 5/89
CONTACT: OAQPS/ESD/PAB, Dallas Safriet (919) 541-5371
CAS NO: 7440-47-3
CHEMICAL: CHROMIUM
SOURCE: Chromium Industry
PROJECT TYPE: Source Assessment
DESCRIPTION: This project will result in a document that is designed to assist Federal, State, and local air pollution agencies in inventorying air emissions of potentially toxic substances. It is one of a series the EPA is preparing to compile information on sources and emissions of these pollutants. Specifically, this document deals with emissions from sources of chromium and updates the earlier report EPA-450/4-84-007g (PB85-106474/XAB).

CL-BIB-0545

TITLE: Procedures for Estimating and Allocating Area Source Emissions of Air Toxics
STATUS: Ongoing; report due 5/89
CONTACT: OAQPS/ESD/PAB, Dallas Safriet (919) 541-5371
CAS NO: CL-VARIOUS
CHEMICAL: VARIOUS
SOURCE: Area and Mobile Sources
PROJECT TYPE: Emission Factors
DESCRIPTION: The objective of this project is to produce a document, now in draft form, that offers procedures for estimating air toxics emissions from area sources. The described techniques generally yield county-wide emissions estimates. Methodologies are also included for allocating county-wide emissions to subcounty grids. The document includes factors for air toxics emissions from the most important or prevalent area source categories found in urban areas, such as mobile sources, heating, and gasoline service stations.

CL-BIB-0546

TITLE: Test Method Development for Pathogen Monitoring of Medical Waste Incinerators
STATUS: Ongoing
CONTACT: OAQPS/TSD/EMB, Foston Curtis (919) 541-1063
CAS NO: CL-BACT
CHEMICAL: BACTERIAL EMISSIONS
SOURCE: Medical Waste Incineration
PROJECT TYPE: Source Sampling
DESCRIPTION: This project involves the development of a test method for monitoring pathogen emissions from medical waste incineration. Draft methods will be ready by the end of this fiscal year. Field testing of test methods will begin next year.

CL-BIB-0547

TITLE: Development of Continuous Emission Monitoring Guidelines for Municipal Waste Combustion
STATUS: Ongoing
CONTACT: OAQPS/TSD/EMB, Terry Harrison (919) 541-5233
CAS NO: CL-PM, 630-08-0, 7647-01-1, 11104-93-1
CHEMICAL: PARTICULATE MATTER, CARBON MONOXIDE, HYDROCHLORIC ACID, NITROGEN OXIDES
SOURCE: Municipal Waste Combustion
PROJECT TYPE: Ambient Monitoring
DESCRIPTION: Guidelines for monitoring the continuous emission of SO2, HCl, CO, NOx, and opacity are being developed. Final guidelines are expected in the fall of 1989. This project is a cooperative effort between OAQPS and the Northeast States for Coordinated Air Use Management (NESCAUM).

CL-BIB-0548

TITLE: Method Development for Condensible Particulate Matter Monitoring
STATUS: Ongoing
CONTACT: OAQPS/TSD/EMB, Candace Sorrell (919) 541-1064
CAS NO: CL-PM
CHEMICAL: PARTICULATE MATTER
PROJECT TYPE: Source Sampling
DESCRIPTION: A method for measuring condensible particulate matter is being developed. Field testing of the draft method is currently being conducted. A revised draft method should be available by December. This project is in support of the development of State implementation programs.

CL-BIB-0549

TITLE: Evaluation of Factors that Influence Acceptable Indoor Air Quality
STATUS: Ongoing; draft report due fall '89
CONTACT: OAIAP/IAD, Pauline Johnston (202) 382-2871
CAS NO: CL-IAP
CHEMICAL: INDOOR AIR POLLUTANTS
PROJECT TYPE: Indoor Air
DESCRIPTION: The project will result in a technical program strategy document that is to be the developmental framework for identifying and evaluating appropriate parameters for acceptable indoor air quality.

CL-BIB-0550

TITLE: New Home Construction Guide for Preventing Indoor Air Problems in New Homes
STATUS: Ongoing; report due 1990
CONTACT: OAIAP/IAD, Betsy Agle (202) 382-7753
CAS NO: CL-IAP
CHEMICAL: INDOOR AIR POLLUTANTS
SOURCE: New Homes
PROJECT TYPE: Indoor Air
DESCRIPTION: The project will result in a guide that identifies techniques including construction methods and procedures that will prevent indoor air problems from occurring in new homes.

CL-BIB-0551

TITLE: PIPQUIC (Program Integration Project - Queries Using Interactive Commands)
STATUS: Ongoing
CONTACT: OAQPS/AQMD/NPPB, Tom Lahre (919) 541-5668
CAS NO: CL-VARIOUS
CHEMICAL: VARIOUS
PROJECT TYPE: Exposure Assessment, Risk Assessment, Source Assessment
DESCRIPTION: PIPQUIC (Program Integration Project - Queries Using Interactive Commands) is a computerized data base management system that allows analysis and graphical display of urban air toxics emissions, exposure, and risk data. This system resides on EPA's National Computer Center (NCC) IBM computer and is accessible to government agencies with proper equipment and NCC accounts. A brochure, demonstration diskette, and user's guide are available to government agencies.

CL-BIB-0552

TITLE: Compiling Air Toxics Emission Inventories, Second Edition
STATUS: Ongoing; report due 8/89
CONTACT: OAQPS/AQMD/NPPB, Tom Lahre (919) 541-5668
CAS NO: CL-VARIOUS
CHEMICAL: VARIOUS
PROJECT TYPE: Emission Factors
DESCRIPTION: This project will update the first edition, EPA-450/4-86-010 (PB86-238086/REB). The report will contain technical materials to assist State and local agencies in compiling air toxics emission inventories. It contains a discussion of (1) various considerations that should be made in planning and beginning an inventory and (2) various tools an agency can use to locate potential sources and to estimate emissions therefrom. The appendices contain the data needed to use these inventory tools and some example applications.

CL-BIB-0553

TITLE: Staten Island-New Jersey Urban Air Toxics Assessment Program
STATUS: Started FY 86; complete 1991
CONTACT: EPA Region II, Rudy Kapichek (212) 264-2517
CAS NO: CL-VOC, CL-METAL, 50-00-0, CL-IAP
CHEMICAL: VOLATILE ORGANIC COMPOUNDS, METALLIC COMPOUNDS, FORMALDEHYDE, INDOOR AIR POLLUTANTS
PROJECT TYPE: Ambient Monitoring, Indoor Air, Risk Assessment
DESCRIPTION: The goals of this project are to assess ambient air quality for air toxics and to conduct comparisons of sampling methods, especially for volatile organic compounds (VOCs). The study will combine elements of the New York-New Jersey emission inventory. A two-year sampling program will be followed by risk evaluation. Monitoring stations include 13 VOC sites, 5 trace metal sites, 5 formaldehyde sites, and 5 sites for wind parameters. An indoor air component is still under development.

CL-BIB-0554

TITLE: Evaluation of Carbon Tetrachloride Emissions from an Agricultural and Industrial Chemical Production Facility
STATUS: Ongoing
CONTACT: EPA Region IV, Sharon Porter (404) 347-2864
CAS NO: 56-23-5
CHEMICAL: CARBON TETRACHLORIDE
SOURCE: Agricultural and Industrial Chemical Industry
PROJECT TYPE: Control Technology, Dispersion Modeling, Exposure Assessment, Source Assessment
DESCRIPTION: This is a high risk point source project to evaluate carbon tetrachloride emissions from an agricultural and industrial chemical plant in Tennessee. The project will involve an initial inspection of the facility followed by dispersion modeling, human exposure modeling, and an assessment of control alternatives.

CL-BIB-0555

TITLE: Evaluation of Potentially Toxic VOC Emissions from a Pesticide and Agricultural Chemical Production Facility
STATUS: Ongoing
CONTACT: EPA Region IV, Sharon Porter (404) 347-2864
CAS NO: CL-VOC, CL-PEST
CHEMICAL: VOLATILE ORGANIC COMPOUNDS, PESTICIDES
SOURCE: Pesticides and Agricultural Chemical Industry
PROJECT TYPE: Control Technology, Dispersion Modeling, Exposure Assessment, Source Assessment
DESCRIPTION: This is a high risk point source project to evaluate toxic VOC emissions from a pesticide and agricultural chemical plant in Florida. Initial inspection of the facility has been completed. This will be followed by dispersion modeling, human exposure modeling, and an assessment of control alternatives.

CL-BIB-0556

TITLE: Health Assessment Document for Ethylene Oxide
STATUS: Ongoing; report due 6/89
CONTACT: OHEA/HHAG, Hal Zenick (202) 475-8913
CAS NO: 75-21-8
CHEMICAL: ETHYLENE OXIDE
PROJECT TYPE: Health Assessment
DESCRIPTION: This project will develop an addendum to the "Weight of Evidence" project (CL-BIB-0349). Ethylene oxide will be evaluated in terms of its health effects and public health risks.

CL-BIB-0557

TITLE: Summary Review of Health Effects Associated with Ammonia: Health Issue Assessment
STATUS: Ongoing; final report due FY 89
CONTACT: OHEA/ECAO-RTP, Beverly Comfort (919) 541-4165
CAS NO: 7664-41-7
CHEMICAL: AMMONIA
PROJECT TYPE: Health Assessment
DESCRIPTION: This project will involve a Tier I Assessment of the scientific literature concerning the most important health effects associated with ammonia. If there are no adverse health effects, and the Office of Air and Radiation makes a decision not to list the substance as a hazardous air pollutant, then the Tier I will be published. If there are significant health effects, a comprehensive Health Assessment Document will be made available in draft form for public and Science Advisory Board review, and subsequent publication as a final document.

CL-BIB-0558

TITLE: Summary Review of Health Effects Associated with Methyl Methacrylate: Health Issue Assessment
STATUS: Ongoing; final report due FY 89
CONTACT: OHEA/ECAO-RTP, William Ewald (919) 541-4164
CAS NO: 80-62-6
CHEMICAL: METHYL METHACRYLATE
PROJECT TYPE: Health Assessment
DESCRIPTION: This project will involve a Tier I Assessment of the scientific literature concerning the most important health effects associated with methyl methacrylate. If there are no adverse health effects, and the Office of Air and Radiation makes a decision not to list the substance as a hazardous air pollutant, then the Tier I will be published. If there are significant health effects, a comprehensive Health Assessment Document will be made available in draft form for public and Science Advisory Board review, and subsequent publication as a final document.

CL-BIB-0559

TITLE: Summary Review of Health Effects Associated with Phthalic Anhydride: Health Issue Assessment
STATUS: Ongoing; final report due FY 89
CONTACT: OHEA/ECAO-RTP, William Ewald (919) 541-4164
CAS NO: 85-44-9
CHEMICAL: PHTHALIC ANHYDRIDE
PROJECT TYPE: Health Assessment
DESCRIPTION: This project will involve a Tier I Assessment review of the scientific literature concerning the most important health effects associated with phthalic anhydride. If there are no adverse health effects, and the Office of Air and Radiation makes a decision not to list the substance as a hazardous air pollutant, then the Tier I will be published. If there are significant health effects, a comprehensive Health Assessment Document will be made available in draft form for public and Science Advisory Board review, and subsequent publication as a final document.

CL-BIB-0560

TITLE: Summary Review of Health Effects Associated with Maleic Anhydride: Health Issue Assessment
STATUS: Ongoing; final report due FY 89
CONTACT: OHEA/ECAO-RTP, William Ewald (919) 541-4164
CAS NO: 108-31-6
CHEMICAL: MALEIC ANHYDRIDE
PROJECT TYPE: Health Assessment
DESCRIPTION: This project will involve a Tier I Assessment of the scientific literature concerning the most important health effects associated with maleic anhydride. If there are no adverse health effects, and the Office of Air and Radiation makes a decision not to list the substance as a hazardous air pollutant, then the Tier I will be published. If there are significant health effects, a comprehensive Health Assessment Document will be made available in draft form for public and Science Advisory Board review, and subsequent publication as a final document.

CL-BIB-0561

TITLE: Summary Review of Health Effects Associated with Xylene: Health Issue Assessment
STATUS: Ongoing; final report due FY 89
CONTACT: OHEA/ECAO-RTP, Mark Greenburg (919) 541-4156
CAS NO: 1330-20-7
CHEMICAL: XYLENE
PROJECT TYPE: Health Assessment
DESCRIPTION: This project will involve a Tier I Assessment of the scientific literature concerning the most important health effects associated with xylene. If there are no adverse health effects, and the Office of Air and Radiation makes a decision not to list the substance as a hazardous air pollutant, then the Tier I will be published. If there are significant health effects, a comprehensive Health Assessment Document will be made available in draft form for public and Science Advisory Board review, and subsequent publication as a final document.

CL-BIB-0562

TITLE: Summary Review of Health Effects Associated with Organic Phosphorus: Health Issue Assessment
STATUS: Ongoing; final report due FY 89
CONTACT: OHEA/ECAO-RTP, Beverly Comfort (919) 541-4165
CAS NO: CL-ORGANIC, 7723-14-0
CHEMICAL: ORGANIC COMPOUNDS, PHOSPHORUS (YELLOW)
PROJECT TYPE: Health Assessment
DESCRIPTION: This project will involve a Tier I Assessment of the scientific literature concerning the most important health effects associated with organic phosphorus. If there are no adverse health effects, and the Office of Air and Radiation makes a decision not to list the substance as a hazardous air pollutant, then the Tier I will be published. If there are significant health effects, a comprehensive Health Assessment Document will be made available in draft form for public and Science Advisory Board review, and subsequent publication as a final document.

CL-BIB-0563

TITLE: Summary Review of Health Effects Associated with Inorganic Phosphorus: Health Issue Assessment
STATUS: Ongoing: final report due FY 89
CONTACT: OHEA/ECAO-RTP, Beverly Comfort (919) 541-4165
CAS NO: 7723-14-0
CHEMICAL: PHOSPHORUS (YELLOW)
PROJECT TYPE: Health Assessment
DESCRIPTION: This project will involve a Tier I Assessment of the scientific literature concerning the most important health effects associated with inorganic phosphorus. If there are no adverse health effects, and the Office of Air and Radiation makes a decision not to list the substance as a hazardous air pollutant, then the Tier I will be published. If there are significant health effects, a comprehensive Health Assessment Document will be made available in draft form for public and Science Advisory Board review, and subsequent publication as a final document.

CL-BIB-0564

TITLE: Summary Review of Health Effects Associated with Dimethylamine: Health Issue Assessment
STATUS: Ongoing: final report due FY 89
CONTACT: OHEA/ECAO-RTP, Winona Victery (919) 541-4828
CAS NO: 124-40-3
CHEMICAL: DIMETHYLAMINE
PROJECT TYPE: Health Assessment
DESCRIPTION: This project will involve a Tier I Assessment of the scientific literature concerning the most important health effects associated with dimethylamine. If there are no adverse health effects, and the Office of Air and Radiation makes a decision not to list the substance as a hazardous air pollutant, then the Tier I will be published. If there are significant health effects, a comprehensive Health Assessment Document will be made available in draft form for public and Science Advisory Board review, and subsequent publication as a final document.

CL-BIB-0565

TITLE: Summary Review of Health Effects Associated with Styrene: Health Issue Assessment
STATUS: Ongoing: final report due FY 89
CONTACT: OHEA/ECAO-RTP, Harriet Ammann (919) 541-4390
CAS NO: 100-42-5
CHEMICAL: STYRENE
PROJECT TYPE: Health Assessment
DESCRIPTION: This project will involve a Tier I Assessment of the scientific literature concerning the most important health effects associated with styrene. If there are no adverse health effects, and the Office of Air and Radiation makes a decision not to list the substance as a hazardous air pollutant, than the Tier I will be published. If there are significant health effects, a comprehensive Health Assessment Document will be made available in draft form for public and Science Advisory Board review, and subsequent publication as a final document.

CL-BIB-0566

TITLE: Summary Review of Health Effects Associated with Hydrogen Cyanide: Health Issue Assessment
STATUS: Ongoing: final report due FY 89
CONTACT: OHEA/ECAO-RTP, Harriet Ammann (919) 541-4390
CAS NO: 74-90-8
CHEMICAL: HYDROGEN CYANIDE
PROJECT TYPE: Health Assessment
DESCRIPTION: This project will involve a Tier I Assessment of the scientific literature concerning the most important health effects associated with hydrogen cyanide. If there are no adverse health effects, and the Office of Air and Radiation makes a decision not to list the substance as a hazardous air pollutant, then the Tier I will be published. If there are significant health effects, a comprehensive Health Assessment Document will be made available in draft form for public and Science Advisory Board review, and subsequent publication as a final document.

CL-BIB-0567

TITLE: Endotoxins in Bulk Cotton and Airborne Dusts
STATUS: Started 3/88; complete 9/89
CONTACT: NIOSH/DRDS/LIB, Stephen Olenchock (304) 291-4256
CAS NO: CL-COTDUST
CHEMICAL: COTTON DUST
SOURCE: Cotton Mills
PROJECT TYPE: Risk Assessment
DESCRIPTION: This study will provide the opportunity to examine prospective endotoxin data in active cotton mills that operate in the People's Republic of China without the benefit of the U.S. cotton dust standard, in order to determine whether increased incidence of byssinosis correlates with elevated endotoxin levels.

CL-BIB-0568

TITLE: Field Assessment of Emissions from a Waste Stabilization Process
STATUS: Ongoing
CONTACT: OEETD/RREL, Paul Warner (513) 569-7293
CAS NO: CL-VOC
CHEMICAL: VOLATILE ORGANIC COMPOUNDS
SOURCE: Waste Solidification Processes
PROJECT TYPE: Source Assessment
DESCRIPTION: Air emissions, primarily VOCs, from waste solidification processes will be assessed at selected field test sites.

CL-BIB-0569

TITLE: Assessment of the Controllability of Condensible Emissions
STATUS: Ongoing
CONTACT: AEERL/ATRD/ATCB, Chuck Masser (919) 541-7586
CAS NO: CL-ORGANIC, 7704-34-9, CL-METAL, 7727-37-9
CHEMICAL: ORGANIC COMPOUNDS, SULFUR, METALLIC COMPOUNDS, NITROGEN
PROJECT TYPE: Control Technology, Source Assessment
DESCRIPTION: The objective of this study is to assemble and analyze information on condensible emissions to gain insight into the effectiveness of various control technologies. The primary focus will be on process sources. Where possible, distinctions will be made between types of condensibles (i.e., sulfur, nitrogen, organics, and metal fume compounds). Included in the analysis will be the effect of operation and maintenance, industry resistance to change, and the application of successful experiences in related applications.

CL-BIB-0570

TITLE: Study to Evaluate Scrubbers as a Control for Arsine and Phosphine Emissions in the Semiconductor Industry
STATUS: Ongoing
CONTACT: OAQPS/ESD/CPB, Leslie Evans (919) 541-5410
CAS NO: 7784-42-1, 7803-51-2
CHEMICAL: ARSINE, PHOSPHINE
SOURCE: Semiconductor Industry
PROJECT TYPE: Source Assessment
DESCRIPTION: The EPA Control Technology Center is working with the Emission Standards Division to evaluate the effectiveness of a scrubber for the control of emissions of arsine and phosphine at a semiconductor manufacturing plant in California. The research is being conducted at the request of the San Diego County Air Pollution Control District. Results will be available June 1989.

CL-BIB-0571

TITLE: Study of Formaldehyde Emissions from the Manufacture of Veneer Wood Products
STATUS: Ongoing; complete 5/89
CONTACT: AEERL/ATRD/IPB, Kelly Janes (919) 541-2852
CAS NO: 50-00-0
CHEMICAL: FORMALDEHYDE
SOURCE: Veneer Wood Product Industry
PROJECT TYPE: Source Assessment
DESCRIPTION: The EPA Control Technology Center, along with the EPA Air and Energy Engineering Laboratory, is assisting the State of Virginia in developing improved data on formaldehyde emissions from the preparation, application, and processing of veneer wood products.

CL-BIB-0572

TITLE: Study to Determine Control Options for Creosote Wood Treatment Process
STATUS: Ongoing; final report due 6/89
CONTACT: OAQPS/ESD/ISB, Bruce Moore (919) 541-5460
CAS NO: 8021-39-4
CHEMICAL: CREOSOTE
SOURCE: Creosote Wood Treating Industry
PROJECT TYPE: Control Technology
DESCRIPTION: In response to a request from the Virginia Air Pollution Control Board, EPA Control Technology Center, along with the EPA Emission Standards Division, has investigated control options for creosote wood treatment operation emissions.

CL-BIB-0573

TITLE: Assessment of VOC Emissions from Fiberglass Marine Craft Manufacturing
STATUS: Ongoing
CONTACT: AEERL/ATRD/ATCB, Charles Darvin (919) 541-7633
CAS NO: CL-VOC
CHEMICAL: VOLATILE ORGANIC COMPOUNDS
SOURCE: Fiberglass Marine Craft Industry
PROJECT TYPE: Control Technology, Source Assessment
DESCRIPTION: The EPA Air and Energy Engineering Laboratory and the Control Technology Center are both involved in the study of emissions from the fiberglass boat manufacturing industry. The purpose of this work assignment is to conduct a survey of the fiberglass marine craft production industry to define the nature and scope of VOC emissions from this source. The survey will include total industry VOC emissions and the geographic distribution of the industry. Emissions from different industry segments, specific processes identified in the industry, and industry structure (production rate, employment) and economic data (such as cash flows) will also be determined. Finally, potential VOC control options will be identified.

CL-BIB-0574

TITLE: The Development of Emissions Estimation Procedures for Surface Impoundments
STATUS: Ongoing; complete 7/89
CONTACT: OAQPS/TSD/MRB, David Misenheimer (919) 541-5473
CAS NO: CL-VOC
CHEMICAL: VOLATILE ORGANIC COMPOUNDS
SOURCE: Surface Impoundments
PROJECT TYPE: Source Assessment
DESCRIPTION: The EPA Control Technology Center and the Technical Support Division are developing personal computer-based methodologies for estimating emissions of volatile organics and air toxics from surface impoundments associated with wastewater treatment systems. The software and associated documents will be available July 1989.

CL-BIB-0575

TITLE: Evaluation of Chromium Emissions from a Specialty Steel Plant
STATUS: Ongoing; final report due 6/89
CONTACT: AEERL/ATRD/ATCB, Bob McCrillis (919) 541-2733
CAS NO: 7440-47-3
CHEMICAL: CHROMIUM
SOURCE: Steel Industry
PROJECT TYPE: Source Assessment
DESCRIPTION: At the request of EPA Region VIII, the EPA Control Technology Center is performing an evaluation of chromium emissions from a steel plant that is reopening in Utah.

CL-BIB-0576

TITLE: Analysis of Emissions from Tire Burning
STATUS: Ongoing; final report due 6/89
CONTACT: AEERL/CIAD/CRB, Paul Lemieux (919) 541-0962
CAS NO: CL-PM, CL-VOC, CL-SVOC, CL-METAL
CHEMICAL: PARTICULATE MATTER, VOLATILE ORGANIC COMPOUNDS, SEMIVOLATILE ORGANIC COMPOUNDS, METALLIC COMPOUNDS
SOURCE: Tire Burning
PROJECT TYPE: Health Assessment, Source Assessment
DESCRIPTION: In response to a number of Hotline requests, the EPA Control Technology Center, along with the Air and Energy Engineering Laboratory, is conducting a study on the emissions from burning tires. Measurements of particulates, VOCs, semivolatile organics, and metals have been made. Emissions will be related to the burning rate. The EPA Health Effects Research Laboratory is conducting bioassay work for the study.

CL-BIB-0577

TITLE: Emission Factor Development for PM10 and Metals from Outdoor Abrasive Blasting
STATUS: Ongoing; report due 7/89
CONTACT: AEERL/ATRD/ATCB, Chuck Masser (919) 541-7586
CAS NO: CL-METAL, CL-PM
CHEMICAL: METALLIC COMPOUNDS, PARTICULATE MATTER
PROJECT TYPE: Emission Factors, Source Assessment
DESCRIPTION: At the request of the Puget Sound Air Pollution Control Agency, the EPA Control Technology Center, along with the Air and Energy Engineering Laboratory, is assisting in the calculation of emission factors for PM10 and toxic metals from the abrasive blasting of outdoor structures.

CL-BIB-0578

TITLE: Monitoring VOCs Using a Computer Network
STATUS: Ongoing
CONTACT: AREAL/MDB/MMS, William McClenny (919) 541-3158
CAS NO: CL-VOC
CHEMICAL: VOLATILE ORGANIC COMPOUNDS
PROJECT TYPE: Ambient Monitoring
DESCRIPTION: The methodology for monitoring VOCs can be used in a computer network station and applied in the field. The program allows data to be collected on a schedule set by the user. It also allows for the separation and detection of compounds on a basis established by the user.

CL-BIB-0579

TITLE: Development of Control Strategies for Chromium Emissions from Chrome Plating Facilities
STATUS: Ongoing
CONTACT: EPA Region X, Elizabeth Waddell (206) 442-8578
CAS NO: 7440-47-3
CHEMICAL: CHROMIUM
SOURCE: Chrome Plating Industry
PROJECT TYPE: Control Technology, Source Assessment
DESCRIPTION: Puget Sound Air Pollution Control Agency (PSAPCA) has targeted sources of chromium emissions that may require control. The PSAPCA is working with a large emitter to quantify emissions and develop control strategies. Evaluation of many of the smaller chromium sources is also being conducted.

CL-BIB-0580

TITLE: PM10 Monitoring Program to Evaluate Wood Smoke Impacts in Sitka
STATUS: Ongoing
CONTACT: EPA Region X, Elizabeth Waddell (206) 442-8578
CAS NO: CL-WOOD, CL-PM
CHEMICAL: WOOD SMOKE, PARTICULATE MATTER
SOURCE: Wood Smoke Sources
PROJECT TYPE: Ambient Monitoring, Source Sampling
DESCRIPTION: The Alaska Department of Environmental Conservation is operating a monitoring program to evaluate wood smoke pollution in Sitka. An SSI high volume sampler collects PM10 samples, and a nephelometer provides continuous tracking of the ambient particulate level.

CL-BIB-0581

TITLE: Puget Sound Air Toxics Deposition Study
STATUS: Ongoing
CONTACT: EPA Region X, Elizabeth Waddell (206) 442-8578
CAS NO: CL-VARIOUS
CHEMICAL: VARIOUS
PROJECT TYPE: Ambient Monitoring, Toxicity Testing
DESCRIPTION: The Air Toxics Coordinator of the Puget Sound Air Pollution Control Agency, along with the Puget Sound Water Quality Authority, is conducting a study of air toxics deposition in Puget Sound. The study includes air and water monitoring and modeling to assess air quality impacts on the biologically active water microlayer. Establishing a link between air quality and water quality could have profound effects on the future of the air toxics program in Region X.

CL-BIB-0582

TITLE: Residential Wood Combustion Emissions Study
STATUS: Ongoing; complete 6/89
CONTACT: EPA Region X, Elizabeth Waddell (206) 442-8578
CAS NO: CL-WOOD
CHEMICAL: WOOD SMOKE
SOURCE: Wood Smoke Sources
PROJECT TYPE: Control Techology, Health Assessment, Source Sampling
DESCRIPTION: This study was designed to improve the tools used to quantify urban wood smoke emissions, to establish specific air pollutant exposure levels in residential neighborhoods, to relate these exposures to health standards, and to establish an air pollution baseline for use in assessing the effectiveness of future mitigation measures.

CL-BIB-0583

TITLE: An Assessment of Controls for Emissions from the Use of Soil Vapor Extraction Technology
STATUS: Ongoing
CONTACT: EPA Region VIII, Norm Huey (303) 293-1760
CAS NO: CL-VOC
CHEMICAL: VOLATILE ORGANIC COMPOUNDS
SOURCE: Contaminated Soil
PROJECT TYPE: Control Technology
DESCRIPTION: Soil vapor extraction (SVE) is an emerging technology that has a high potential for the clean-up of soils contaminated by volatile organic compounds (VOCs). This process utilizes vacuum extraction to volatilize and remove organic compounds. SVE is currently being used for clean-up actions at Superfund sites. Emissions can be greatly reduced if the vacuum pump outlet is vented to a control device such as an incinerator or carbon adsorber. The purpose of this project is to examine VOC emission control techniques that may be utilized on the vacuum pump emission stream.

CL-BIB-0584

TITLE: Evaluation of Modeling Procedures for Low Level Releases at Superfund Sites
STATUS: Ongoing
CONTACT: OAQPS/TSD/SRAB, Joe Touma (919) 541-5381
CAS NO: CL-VARIOUS
CHEMICAL: VARIOUS
SOURCE: Superfund Sites
PROJECT TYPE: Dispersion Modeling
DESCRIPTION: EPA has an ongoing program to develop air quality models suitable for application to toxic and hazardous air emissions at Superfund sites. The purpose of this project is to review the area source algorithms available within the models contained in UNAMAP and the algorithms available in other models. The review is to focus on the release scenarios applicable to Superfund sites. If no existing algorithm is judged to be adequate, the possibility of developing a new area source algorithm will be investigated.

CL-BIB-0585

TITLE: Benzene II
STATUS: Ongoing; complete FY 90
CONTACT: OAQPS/ESD/SDB, Doug Bell (919) 541-5568
CAS NO: 71-43-2
CHEMICAL: BENZENE
SOURCE: Benzene Users
PROJECT TYPE: NESHAP Development
DESCRIPTION: By August 1989, a decision must be made whether to control benzene in waste streams, process vents, gasoline marketing, and solvent use. If a decision is made to regulate, the rule must be promulgated by February 1990. Such a regulation will mainly impact refineries and chemical plants, but other benzene users will also be affected.

CL-BIB-0586

TITLE: National Bureau of Standards General Indoor Air Pollution Concentration Model
STATUS: Started FY 85; ongoing
CONTACT: AREAL/EARD, David Holland (919) 541-3126
CAS NO: CL-IAP
CHEMICAL: INDOOR AIR POLLUTANTS
SOURCE: Buildings
PROJECT TYPE: Dispersion Modeling, Indoor Air
DESCRIPTION: The fundamental objective of this project is to develop a comprehensive validated computer model to simulate dynamic pollutant movement and concentration variation in buildings. The scope of the project is to develop a full-scale, multi-zone building contaminant dispersal model that simulates flow processes (e.g., infiltration, dilution, and exfiltration) and contaminant generation, reaction, and removal processes. The project has three phases; the Phase III report is available: "Progress Toward a General Analytical Method for Predicting Indoor Air Pollution in Buildings," NBSIR-88/3814 (PB88-236716/REB).

CL-BIB-0587

TITLE: Revisions to the Technical Assistance Document for the Sampling and Analysis of Toxic Organic Compounds in Ambient Air
STATUS: Ongoing: report due FY 89
CONTACT: AREAL/RMEB, Howard Christ (919) 541-2723
CAS NO: CL-ORGANIC
CHEMICAL: ORGANIC COMPOUNDS
PROJECT TYPE: Ambient Monitoring
DESCRIPTION: This project will revise a document of the same name issued in June 1983, EPA-600/4-83-027 (PB83-239020). Changes that have occurred in the areas of regulations, sampling and analysis, calibration procedures, and quality assurance are to be identified and incorporated.

CL-BIB-0588

TITLE: Evaluation of a Modified Method for Measuring Emissions of Chlorinated Solvents from Stationary Sources
STATUS: Ongoing: report due 7/89
CONTACT: AREAL/QAD, Easter Coppedge (919) 541-2785
CAS NO: CL-SOLVENT, 127-18-4, 56-23-5, 67-66-3, 79-01-6
CHEMICAL: SOLVENTS, TETRACHLOROETHYLENE, CARBON TETRACHLORIDE, CHLOROFORM, TRICHLOROETHYLENE
SOURCE: Degreasing Facility
PROJECT TYPE: Source Sampling
DESCRIPTION: Two field tests were conducted to evaluate a methodology for measuring selected chlorinated solvents from stationary sources. The first test used EPA Method 18 to measure perchloroethylene at a degreasing facility. The second test used a modification of Method 18 to measure carbon tetrachloride, chloroform, perchloroethylene, and trichloroethylene at a high temperature, high moisture stationary source. This project also has a laboratory component.

CL-BIB-0589

TITLE: Development and Validation of an Emission Test Method for Dioxins
STATUS: Ongoing: final report due 9/89
CONTACT: AREAL, Jimmy Pau (919) 541-3680
CAS NO: CL-DIOXIN
CHEMICAL: DIOXINS
PROJECT TYPE: Source Sampling
DESCRIPTION: This project will develop a modified EPA Method 5 for improved recovery efficiency of dioxins. Precision and accuracy of the method will be measured.

CL-BIB-0590

TITLE: Development of Formaldehyde Monitoring Techniques
STATUS: Ongoing
CONTACT: AREAL/MDB/MMS, William McClenny (919) 541-3158
CAS NO: 50-00-0
CHEMICAL: FORMALDEHYDE
PROJECT TYPE: Indoor Air, Source Sampling
DESCRIPTION: Using equipment sensitive to the full range of formaldehyde in ambient air, three new monitoring techniques are being tested and refined. This equipment can detect formaldehyde from just a few parts per billion (background levels) to indoor concentration levels (high ppb).

CL-BIB-0591

TITLE: Assessment of Health Effects from Indoor Air Pollutants
STATUS: Started 10/86; complete 9/91
CONTACT: OHR/HERL, Ila Cote (919) 629-2671
CAS NO: CL-IAP, CL-ETS, CL-VOC, CL-PM
CHEMICAL: INDOOR AIR POLLUTANTS, ENVIRONMENTAL TOBACCO SMOKE, VOLATILE ORGANIC COMPOUNDS, PARTICULATE MATTER
SOURCE: Indoor Combustion Sources, Building Materials
PROJECT TYPE: Health Assessment, Indoor Air
DESCRIPTION: This project will develop data on the health effects of indoor air pollutants and the relationship between exposure, dose, and effects. Initial studies will examine a variety of health endpoints including: genetic toxicity, neurotoxicity, and respiratory effects. The indoor pollutants of concern are principally environmental tobacco smoke, organic mixtures from either combustion sources indoors or building materials including particulate and gaseous (VOCs) organics. Genetic bioassay studies and human clinical and field studies will be conducted.

CL-BIB-0592

TITLE: Evaluation of Methodologies for Determining Hepatic Effects of Inhaled Hazardous Pollutants
STATUS: Started 10/86; complete 9/90
CONTACT: OHR/HERL, Jane Ellen Simmons (919) 629-7829
CAS NO: CL-VARIOUS
CHEMICAL: VARIOUS
PROJECT TYPE: Toxicity Testing
DESCRIPTION: The goal of this project is to compare the acute and chronic hepatotoxic effects of air pollutants in mammalian systems treated by inhalation, gavage, and in vitro methodologies. The endpoints of interest are those which are expected to significantly reflect alterations in serochemistry, liver, body and organ weights, and in hepatocytes and sustaining media. These endpoints will be cross-compared in acute and chronic dose-response studies in the three methodologies involved. The massed results may allow a more confident use of gavage and in vitro data in interpreting inhalation effects.

CL-BIB-0593

TITLE: Radon Mitigation Development and Demonstration Program
STATUS: Ongoing
CONTACT: AEERL, A. B. Craig (919) 541-2824
CAS NO: 10043-92-2
CHEMICAL: RADON
PROJECT TYPE: Control Technology, Indoor Air
DESCRIPTION: The EPA program has as its objective the development and demonstration of cost-effective radon reduction techniques applicable to existing and new construction houses, all housing substructure types, a wide range of house design and construction features, a range of initial radon concentrations, a variety of radon mitigation approaches, and a scope that is national. The program, which started on a small scale in 1984, is divided into four major areas: methods for radon entry diagnosis and reduction performance testing, reduction methods for existing houses, reduction methods for new houses, and program support and information transfer. After one year of study, a matrix was developed to try to systematize a very complex problem.

CL-BIB-0594

TITLE: Development of Risk Assessment Methocology for Municipal Sludge Incineration
STATUS: Ongoing; report due FY 89
CONTACT: OHEA/ECAO-Cin, Randy Bruins (513) 569-7539
CAS NO: CL-SEWSLUD
CHEMICAL: SEWAGE SLUDGE
SOURCE: Municipal Sewage Sludge Incinerators
PROJECT TYPE: Risk Assessment
DESCRIPTION: This project will develop one in a series of four documents providing risk assessment methods for sewage sludge reuse/disposal options. The document will provide methods for assessing risk to humans from pollutants emitted from sewage sludge incinerators. Procedures for developing numerical criteria for the inhalation pathway will be described.

CL-BIB-0595

TITLE: Technical Support Document for Chemical Mixtures Guidelines
STATUS: Ongoing; report due FY 89
CONTACT: OHEA/ECAO-Cin, Richard Hertzberg (513) 569-7582
CAS NO: CL-VARIOUS
CHEMICAL: VARIOUS
PROJECT TYPE: Risk Assessment
DESCRIPTION: This project developed a technical support document that provides the scientific basis of procedures described in the Agency's 1986 Guidelines for Health Risk Assessment of Chemical Mixtures. Unique sections of this document include: an overview of available toxicity data on complex mixtures and binary exposures, an estimate of the maximum synergistic effect observed for environmental chemicals, an evaluation of quantitative methods (statistics and models) that have been used in characterizing interactions, a summary of the ORD interaction data base (MIXTOX), and recommendations for Guidelines revisions and future research relevant to mixtures risk assessment.

CL-BIB-0596

TITLE: Evaluation of the Biological Significance of Toxicological Effects
STATUS: Ongoing: report due FY 89
CONTACT: OHEA/ECAO-Cin, Chris DeRosa (513) 569-7534
CAS NO: CL-VARIOUS
CHEMICAL: VARIOUS
SOURCE: Ranking Severity of Effects
PROJECT TYPE: Toxicity Testing
DESCRIPTION: This project identifies and evaluates the major issues associated with assessing the severity of toxicological effects, discusses the extent to which different measures of toxicity reflect or predict functional impairment, and analyzes two potential schemes for ranking severity. The proceedings of two workshops are included in which participants identified issues that must be addressed in ranking effects according to their severity and using an effects ranking scheme for comparative evaluation of chemicals.

CL-BIB-0597

TITLE: Reducing Uncertainties in Risk Assessment
STATUS: Started 1987; ongoing
CONTACT: OHEA/REAG, Hal Zenick (202) 382-7303
CAS NO: CL-VARIOUS
CHEMICAL: VARIOUS
PROJECT TYPE: Exposure Assessment, Risk Assessment
DESCRIPTION: This entry describes a research program dealing with many aspects of risk assessment, including uncertainty analysis and exposure assessment. More information on details of specific projects are contained in the annual reports; the first one was published in 1988, the second annual report is due in June 1989. For copies of the "Reducing Uncertainties in Risk Assessment" reports, write to: Marie Pfaff, Technical Information Service, Office of Health and Environmental Assessment, U.S. EPA, RD 689, Washington, DC 20460.

CL-BIB-0598

TITLE: Radon Mitigation and Prevention Techniques for Schools and Workplaces
STATUS: Ongoing
CONTACT: ORP/RD/MPQAB, Dave Murane (202) 475-9605
CAS NO: 10043-92-2
CHEMICAL: RADON
SOURCE: Radon Sources
PROJECT TYPE: Control Technology, Indoor Air
DESCRIPTION: There is a need to expand the knowledge of how to deal with different types of buildings such as schools and workplaces. This EPA project is designed to transfer information developed by EPA concerning radon mitigation and prevention in larger buildings to the States and private sector. This technology transfer is accomplished through EPA contractors who perform radon entry diagnostics and develop mitigation design plans in pilot buildings. Additional transfer is achieved because maintenance staff or private contractors implement the mitigation designs.

CL-BIB-0599

TITLE: New House Evaluation Program (New HEP) for Radon Reduction in New Construction
STATUS: Ongoing
CONTACT: ORP/RD/MPQAB, Dave Murane (202) 475-9605
CAS NO: 10043-92-2
CHEMICAL: RADON
SOURCE: Radon Sources
PROJECT TYPE: Control Technology, Indoor Air
DESCRIPTION: The New House Evaluation Program (New HEP) is designed to transfer technology for constructing radon resistant buildings to the private sector and provide data for the development of model building codes. This program identifies construction techniques that consistently prove successful in preventing radon entry into new homes and provides the building industry with guidelines for evaluating the indoor radon potential of prospective building sites. EPA will also use New HEP data to validate and update the techniques outlined in EPA's pamphlet "Radon Reduction in New Construction, An Interim Guide."

CL-BIB-0600

TITLE: Demonstration of Sealing and Passive Drain Tile and Subslab Ventilation for Radon Mitigation
STATUS: Ongoing
CONTACT: AEERL, A. B. Craig (919) 541-2824
CAS NO: 10043-92-2
CHEMICAL: RADON
SOURCE: Radon Sources
PROJECT TYPE: Control Technology, Indoor Air
DESCRIPTION: Combinations of sealing and passive drain tile and subslab ventilation are being installed during the construction of 15 block basement houses. Monitoring of the houses will be conducted.

CL-BIB-0601

TITLE: Development and Demonstration of Radon Mitigation Techniques for School Buildings
STATUS: Ongoing
CONTACT: AEERL, A. B. Craig (919) 541-2824
CAS NO: 10043-92-2
CHEMICAL: RADON
SOURCE: Radon Sources
PROJECT TYPE: Control Technology, Indoor Air
DESCRIPTION: In this program, cost-effective radon mitigation techniques for school buildings will be designed and installed in representative schools, and optimized to achieve the greatest degree of radon reduction. One of the objectives is to establish a relationship between the physical characteristics of the building (i.e., heating, ventilation, and air conditioning system) and the influence on radon levels.

CL-BIB-0602

TITLE: National Survey of Residential Radon Exposures
STATUS: Ongoing
CONTACT: ORP/RD/PAB, Kirk Maconaughey (202) 475-9605
CAS NO: 10043-92-2
CHEMICAL: RADON
SOURCE: Radon Sources
PROJECT TYPE: Health Assessment, Indoor Air
DESCRIPTION: The primary objectives of this survey are to (1) estimate the frequency distribution of annual average radon exposures in U.S. homes using year-long measurements; and (2) assess correlations between residential radon concentrations and various factors, such as house construction, heating, and ventilation types. This survey will provide estimates of national and regional residential radon exposure patterns, allowing the valid estimation of health risks and an accurate assessment of the magnitude of the health threat due to radon exposures in U.S. homes.

CL-BIB-0603

TITLE: House Evaluation Program to Evaluate the Cost and Effectiveness of Radon Mitigation Methods
STATUS: Ongoing
CONTACT: ORP/RD/MPQAB, Mike Mardis (202) 475-9605
CAS NO: 10043-92-2
CHEMICAL: RADON
SOURCE: Radon Sources
PROJECT TYPE: Control Technology, Indoor Air
DESCRIPTION: The primary objectives of the House Evaluation Programs are to evaluate the cost and effectiveness of mitigation methods and provide hands on training for State and private sector personnel in diagnosing and mitigating radon problems in houses. States select houses with elevated radon levels for participation and contact homeowners. EPA and State personnel diagnose the source(s) of the radon problem and offer the homeowner alternative mitigation schemes. The homeowner then chooses the mitigation schemes to be used and hires the contractor. After mitigation activities are completed, EPA conducts a post-mitigation evaluation to determine the cost and effectiveness of the mitigation efforts. Eleven States were involved in 1988.

CL-BIB-0604

TITLE: Investigation of Methodologies for Characterizing the Radon Potential of Building Sites
STATUS: Ongoing
CONTACT: ORP/RD/PAB, Kirk Maconaughey (202) 475-9605
CAS NO: 10043-92-2
CHEMICAL: RADON
SOURCE: Radon Sources
PROJECT TYPE: Control Technology, Indoor Air
DESCRIPTION: The objective of this research is to investigate the use of radon in soil gas and other methods to characterize the radon potential of building sites. The approach used involves the development of soil gas measurement methodology (with the USGS and a contractor), the development of a method to calibrate soil permeability measurement devices, conducting radioactivity measurements around existing homes, and conducting measurements at undeveloped sites. These projects are part of ORP's Land Evaluation Studies and New House Evaluation Program. Site characterization assistance has also been provided to EPA's Office of Research and Development. This project will assist in the development of land evaluation criteria as well as investigate the effectiveness of radon prevention construction.

CL-BIB-0605

TITLE: Superfund Cooperative Project - Application of Radon Mitigation Techniques to Superfund Sites
STATUS: Ongoing
CONTACT: ORP/RD/MPQAB, Gene Fisher (202) 475-9605
CAS NO: 10043-92-2
CHEMICAL: RADON
SOURCE: Superfund Sites
PROJECT TYPE: Control Technology, Indoor Air, Source Assessment
DESCRIPTION: The purpose of this project is to apply existing mitigation techniques to Superfund sites with high levels of radon in order to reduce human health risks in these areas. The project allows EPA to develop both a standing capability to respond to high risk radon problems at Superfund sites and additional information on diagnosis and mitigation activities in different types of housing. House diagnostics and treatability studies as well as actual mitigation and follow-up activities will be conducted at homes in and around Superfund sites in Montclair, New Jersey, and Otawah, Illinois.

CL-BIB-0606

TITLE: Radon Measurements in Schools
STATUS: Ongoing; report due FY 89
CONTACT: ORP/RD/PAB, Kirk Maconaughey (202) 475-9605
CAS NO: 10043-92-2
CHEMICAL: RADON
SOURCE: Radon Sources
PROJECT TYPE: Indoor Air
DESCRIPTION: Field studies are being conducted to measure concentrations of radon and radon progeny in schools. Data are also being acquired from States and school systems that have conducted independent measurements. These data will be used to develop interim guidance for radon measurements in schools in the fall of 1988. A final guidance document is expected to be completed in FY 89.

CL-BIB-0607

TITLE: National Assessment of Radon Gas (SARA Section 118(k))
STATUS: Ongoing
CONTACT: ORP/RD/PAB, Jacolyn Dziuban (202) 475-9605
CAS NO: 10043-92-2
CHEMICAL: RADON
SOURCE: Radon Sources
PROJECT TYPE: Control Technology, Health Assessment, Indoor Air
DESCRIPTION: The objective of the program is to prepare a report to the Congress that will, to the extent possible, (a) describe locations in the U.S. where radon is found in structures where people live, work, or in schools; (b) assess the level present in these structures; (c) determine the level of radon gas and radon daughters which poses a health threat, and assess the health threat for structures identified in (a); (d) determine methods of reducing or eliminating the human health threat of radon gas and radon daughters; and (e) include guidance and public information materials on the findings or research of mitigating radon.

CL-BIB-0608

TITLE: Development of an Expert System to Select Methods for Radon Mitigation
STATUS: Ongoing
CONTACT: AEERL, A. B. Craig (919) 541-2824
CAS NO: 10043-92-2
CHEMICAL: RADON
SOURCE: Radon Sources
PROJECT TYPE: Control Technology, Indoor Air
DESCRIPTION: A first attempt to develop an expert system to select a method for radon mitigation was employed during 1987. This initial model with significant improvements will constitute one of four basic modules that will make up the radon reduction expert system. The system will be valuable to disseminate information on radon mitigation techniques to users at various levels.

CL-BIB-0609

TITLE: Development of a National Data Base of Indoor Radon Measurements
STATUS: Ongoing
CONTACT: ORP/RD/PAB, Mark Dickson (202) 475-9605
CAS NO: 10043-92-2
CHEMICAL: RADON
SOURCE: Radon Sources
PROJECT TYPE: Indoor Air
DESCRIPTION: The objective of this project is to compile a comprehensive data base of indoor radon measurements. The data base will contain measurements from State/EPA surveys and Federal facilities, as well as measurements made by private vendors. This data will help the EPA evaluate and compare radon levels in different types of buildings as well as determine which areas of the country have particularly acute radon problems.

CL-BIB-0610

TITLE: Report on Radon Measurements in Homes in Butte, Montana
STATUS: Ongoing
CONTACT: ORP/RD/PAB, Kirk Maconaughey (202) 475-9605
CAS NO: 10043-92-2
CHEMICAL: RADON
SOURCE: Radon Sources
PROJECT TYPE: Indoor Air
DESCRIPTION: This report will provide a large data base of radon and radon decay product measurement made by EPA and the Montana Department of Health and Environmental Sciences in 68 homes in Butte, Montana, over an 18-month period. The data will allow analyses of measurements reproducibility and method intercomparisons to be made. A description of the quality assurance methods and major conclusions of the study will be included.

CL-BIB-0611

TITLE: Study of the Release of Radon from Drinking Water into Indoor Air Environments
STATUS: Ongoing; draft report due 11/89
CONTACT: ORD/HERL, Gunther Craun (513) 569-7422
CAS NO: 10043-92-2
CHEMICAL: RADON
SOURCE: Radon Sources
PROJECT TYPE: Emission Factors, Indoor Air
DESCRIPTION: The purpose of this project is to test the validity of the currently used transfer coefficient for radon release from drinking water into indoor air and to increase the statistical significance of the estimate. The current coefficient was based on only 12 measurements. In this study, 100 homes in Maine were sampled using two test conditions. To simulate maximum releases of radon from drinking water to air, all faucets and showers in the homes were turned on full force for two hours. Water volume and radon concentrations in the air and water were measured. Measurements were also taken over a 24-hour period during normal water usage.

CL-BIB-0612

TITLE: Real-Time Personal Monitors for NO2 at Ppb Levels
STATUS: Ongoing
CONTACT: AREAL/MDB/MMS, James Mulik (919) 541-3067
CAS NO: 10102-44-0
CHEMICAL: NITROGEN DIOXIDE
PROJECT TYPE: Exposure Assessment, Indoor Air
DESCRIPTION: A personal monitor to measure exposure to nitrogen dioxide is in the final stages of evaluation.

CL-BIB-0613

TITLE: Monitoring of Dioxin at Dioxin Removal Sites
STATUS: Ongoing
CONTACT: EPA Region VII, Jody Hudson (913) 236-3884
CAS NO: CL-DIOXIN, 94-75-7, 93-76-5
CHEMICAL: DIOXINS, 2,4-DICHLOROPHENOXYACETIC ACID (2,4-D), 2,4,5-TRICHLOROPHENOXYACETIC ACID (2,4,5-T)
SOURCE: Dioxin Removal Sites
PROJECT TYPE: Source Sampling
DESCRIPTION: Dioxin emissions are being monitored at dioxin removal sites in Region VII using GFF/PUF and GC/MS technologies. The roadside and parking lot sites became contaminated by dioxin where waste oil, into which chemical waste from the manufacture of 2,4-D and 2,4,5-T herbicides had been mixed, was applied to the soil for dust control by an independent contractor.

CL-BIB-0614

TITLE: Evaluation of Longpass Fourier Transformation Infra-Red (FTIR) Spectroscopy Remote Sensing Technology for VOCs
STATUS: Ongoing
CONTACT: EPA Region VII, Jody Hudson (913) 236-3884
CAS NO: CL-VOC
CHEMICAL: VOLATILE ORGANIC COMPOUNDS
SOURCE: Superfund Sites; RCRA Treatment, Storage, and Disposal Facilities
PROJECT TYPE: Source Sampling
DESCRIPTION: The Longpass Fourier Transformation Infra-Red (FTIR) Spectroscopy remote sensing technology for VOCs is being evaluated using a broad spectrum of VOCs from area and fugitive sources. Test sites include Superfund sites and RCRA treatment, storage, and disposal facilities.

CL-BIB-0615

TITLE: Quality Assurance for Measurement of Variables When Using Method 28A for Wood Heater Certification Testing
STATUS: Ongoing; report due FY 89
CONTACT: AREAL/MRDD, Thomas Ward (919) 541-3788
CAS NO: CL-PM, CL-WOOD
CHEMICAL: PARTICULATE MATTER, WOOD SMOKE
SOURCE: Wood Heaters
PROJECT TYPE: NSPS Development, Source Sampling
DESCRIPTION: The EPA has proposed New Source Performance Standards (NSPS) for particulate emissions from wood-burning heaters, which require that new wood heaters be tested to demonstrate compliance with the regulation's emission limits. This project evaluates the sources of potential errors when using EPA Method 28A for the certifying and auditing of wood-burning heaters.

CL-BIB-0616

TITLE: Quality Assurance for Measurement of Variables When Using Method 28 for Wood Heater Certification Testing
STATUS: Ongoing; report due FY 89
CONTACT: AREAL/MRDD, Thomas Ward (919) 541-3788
CAS NO: CL-PM, CL-WOOD
CHEMICAL: PARTICULATE MATTER, WOOD SMOKE
SOURCE: Wood Heaters
PROJECT TYPE: NSPS Development, Source Sampling
DESCRIPTION: The EPA has proposed New Source Performance Standards (NSPS) for particulate emissions from wood-burning heaters which require that new wood heaters be tested to demonstrate compliance with the regulation's emission limits. This project evaluates the sources of potential errors when using EPA Method 28 for the certifying and auditing of wood-burning heaters.

CL-BIB-0617

TITLE: Evaluation of Emissions and Control Options at Waferboard Plants
STATUS: Ongoing
CONTACT: OAQPS/ESD/CPB, Leslie Evans (919) 541-5410
CAS NO: CL-PM, 80-56-8, 67-56-1, CL-ALDEHYD
CHEMICAL: PARTICULATE MATTER, ALPHA-PINENE, METHANOL, ALDEHYDES
SOURCE: Waferboard Production Facilities
PROJECT TYPE: Control Technology, Source Assessment
DESCRIPTION: The EPA Control Technology Center, along with the Emission Standards Division, is assisting the State of Colorado in evaluating emissions and control options at waferboard plants. This project will review existing data; no additional sampling or monitoring will be conducted. The two main sources of emissions at waferboard plants are the chip dryer and the glue press. The emissions are complex and vary with wood type. Particulates are a primary problem. Other wood chemical emissions include pinenes, terpines, sugars, aldehydes, and methanol. Three control options, the cyclone, the electrified filter bed, and the wet electrostatic precipitator are being examined. An evaluation of the cost effectiveness will be conducted.

CL-BIB-0618

TITLE: ATSDR Toxicological Profiles
STATUS: Ongoing
CONTACT: ATSDR/RAB, Ed Skovronski (404) 488-4823
CAS NO: 107-06-2, 108-88-3, 108-95-2, 111-44-4, 121-14-2, 25322-20-7, 319-84-6, 319-85-7, 319-86-8, 50-29-3, 542-88-1, 56-23-5, 57-74-9, 58-89-9, 606-20-2, 62-75-9, 621-64-7, 72-54-8, 72-55-9, 7439-97-6, 7440-66-6, 75-00-3, 75-27-4, 75-34-3, 7782-49-2, 78-59-1, 78-87-5, 79-00-5, 87-86-5, 91-94-1, 92-87-5
CHEMICAL: ETHYLENE DICHLORIDE, TOLUENE, PHENOL, BIS(2-CHLOROETHYL) ETHER, 2,4-DINITROTOLUENE, TETRACHLOROETHANE, ALPHA-BHC, BETA-BHC, D-BHC, DDT, BIS-CHLOROMETHYLETHER, CARBON TETRACHLORIDE, CHLORDANE, LINDANE, 2,6-DINITROTOLUENE, N-NITROSODIMETHYLAMINE, N-NITROSO-N-PROPYLAMINE, RHOTHANE, P,P'-DDE, MERCURY, ZINC, CHLOROETHANE, BROMODICHLOROMETHANE, 1,1-DICHLOROETHANE, SELENIUM COMPOUNDS AS SE, ISOPHORONE, 1,2-DICHLOROPROPANE, 1,1,2-TRICHLOROETHANE, PENTACHLOROPHENOL, 3,3'-DICHLOROBENZIDINE, BENZIDINE
SOURCE: Superfund Sites
PROJECT TYPE: Health Assessment
DESCRIPTION: ATSDR is preparing toxicological profiles to pinpoint health effects of chemicals found at Superfund sites.

CL-BIB-0619

TITLE: Health Effects Testing of Isopropanol
STATUS: Ongoing
CONTACT: OTS/ECD, Richard Troast (202) 475-8130
CAS NO: 67-63-0, CL-SOLVENT
CHEMICAL: ISOPROPANOL, SOLVENTS
PROJECT TYPE: Health Assessment
DESCRIPTION: Isopropanol is being tested for the following health effects: oncogenicity, mutagenicity, neurotoxicity, pharmacokinetics, and subchronic, reproductive, and developmental toxicity. Isopropanol is used in coating solvents, process solvents, pharmaceuticals, household and personal products, acetone production, and in miscellaneous solvents and chemical intermediates.

CL-BIB-0620

TITLE: Health Effects Testing of 1,6-Hexamethylene Diisocyanate
STATUS: Ongoing
CONTACT: OTS/ECD, Richard Troast (202) 475-8130
CAS NO: 822-06-0
CHEMICAL: HEXAMETHYLENE DIISOCYANATE
PROJECT TYPE: Health Assessment
DESCRIPTION: 1,6-Hexamethylene diisocyanate is being tested for health effects. Tests cover: chronic toxicity, including oncogenicity, reproductive and developmental effects.

CL-BIB-0621

TITLE: Health Effects Testing of Methyl Tert-Butyl Ether (MTBE)
STATUS: Ongoing
CONTACT: OTS/ECD, Richard Troast (202) 475-8130
CAS NO: 1634-04-4
CHEMICAL: METHYL TERT-BUTYL ETHER
PROJECT TYPE: Health Assessment
DESCRIPTION: Methyl tert-butyl ether (MTBE), a chemical used primarily as a blending component in high-octane gasoline, is being tested for health effects. These tests cover: mutagenicity, pharmacokinetics, neurotoxicity, oncogenicity, developmental toxicity, reproductive and fertility effects, and subchronic effects.

CL-BIB-0622

TITLE: Health Effects Testing of Commercial Hexane and Diethylene Glycol Butyl Ether (DGBE)
STATUS: Ongoing
CONTACT: OTS/ECD, Richard Troast (202) 475-8130
CAS NO: 110-54-3, 112-34-5
CHEMICAL: N-HEXANE, 2-(2-BUTOXYETHOXY)-ETHANOL
PROJECT TYPE: Health Assessment
DESCRIPTION: Commercial hexane is being tested for: oncogenicity, mutagenicity; neurotoxicity; inhalation and dermal pharmacokinetics; and subchronic, reproductive, and developmental toxicity. Commercial hexanes are used as components of lacquers, printing inks, and adhesives, and as seed oil extractants. Diethylene glycol butyl ether (DGBE) is being tested for: subchronic toxicity with particular emphasis on reproductive, hematological, and kidney effects; neurotoxicity; developmental neurotoxicity; and pharmacokinetics. DGBE is found in many consumer and industrial products.

CL-BIB-0623

TITLE: Denver Brown Cloud Study #2
STATUS: Ongoing; report due FY 90
CONTACT: EPA Region VIII, Dewitt Baulch (303) 293-1761
CAS NO: CL-DIESEL, 8006-61-9, CL-PM
CHEMICAL: DIESEL FUEL EMISSIONS, GASOLINE, PARTICULATE MATTER
SOURCE: Mobile Sources
PROJECT TYPE: Control Technology, Emission Factors, Source Assessment
DESCRIPTION: This study is being conducted in the Denver metropolitan area. The objectives are to evaluate alternative fuels for in-use vehicles, to characterize air toxics emissions from mobile sources, to separate the impacts of particles from gas and diesel fuel vehicles, to develop emission factors for street-cleaning operations, and to develop methods for control of reentrained road dust. This project is being funded by the private sector with the EPA providing technical advice. The project is a follow-up of Brown Cloud Study #1, which identified the problem areas that are being addressed.

CL-BIB-0624

TITLE: Study to Determine the Impact of Rush Hour Traffic on Formaldehyde Levels
STATUS: Ongoing
CONTACT: EPA Region VIII, Dewitt Baulch (303) 293-1761
CAS NO: 50-00-0, 1634-04-4, 64-17-5, 630-08-0
CHEMICAL: FORMALDEHDYE, METHYL TERT-BUTYL ETHER, ETHANOL, CARBON MONOXIDE
SOURCE: Mobile Sources
PROJECT TYPE: Ambient Monitoring, Source Assessment
DESCRIPTION: Formaldehyde levels during rush hour traffic are being monitored throughout the year in Colorado. During winter when air pollution problems are most severe, Colorado requires that a certain percentage of motor vehicle fuel be composed of oxygenated fuel such as methyl tertiary butyl ether (MTBE) or ethanol. These fuels reduce the levels of carbon monoxide emissions; however, they increase the levels of formaldehyde emissions. This study will provide a data base on the effects of oxygenated fuels on urban formaldehyde levels.

AK01 PROJECT 001
EMISSIONS INVENTORY OF A PIPELINE MARINE TERMINAL
AK DEPT. OF ENV. DONSERVATION
STATUS: Start Date - 06/88 Expected Completion - 11/88
CONTACT: BILL MACCLARENCE

CA01-A5-128-32
Study to Determine the Fate of Benzene Precursors in Gasoline
CA AIR RESOURCES BOARD
STATUS: Start Date - 01/85 Expected Completion - 12/87
CONTACT: D.E. Salzinger

CA01-A5-174-33
Comparison of Indoor and Outdoor Toxic Air Pollutant Levels in Several Southern California Communities
CA AIR RESOURCES BOARD
STATUS: Start Date - 01/86 Expected Completion - 12/88
CONTACT: E.D. Pellizzari

CA01-A5-185-32
A survey of Ambient Concentrations of Selected Polycyclic Aromatic Compounds (PAHs) at Various Locations in California
CA AIR RESOURCES BOARD
STATUS: Start Date - 01/85 Expected Completion - 12/87
CONTACT: Roger Atkinson (UC-R

CA01-A6-096-32
Fate of Hexavalent Chromium in the Atmosphere
CA AIR RESOURCES BOARD
STATUS: Start Date - 01/87 Expected Completion - 12/87
CONTACT: W. Gutknecht (RTI)

CA01-A6-100-32
Study of Ambient Concentrations of Chlorinated Dibenzodioxins and Dibenzofurans in Urban Areas in the South Coast Air Basin
CA AIR RESOURCES BOARD
STATUS: Start Date - 01/87 Expected Completion - 12/88
CONTACT: A. Loyd (ERT)

CA01-A6-109-32
Measurements of Toxic Exhaust Emissions from Gasoline Light-duty Vehicles
CA AIR RESOURCES BOARD
STATUS: Start Date - 01/87 Expected Completion - 12/87
CONTACT: L. Smith (SRI)

CA01-A6-129-33
Pilot Investigation of Indoor-Outdoor and Personal PM10 and Ongoing Associated Ionic Compounds and Mutagenic Activity
CA AIR RESOURCES BOARD
STATUS: Start Date - 01/87 Expected Completion - 12/88
CONTACT: S. Colome (UCI)

CA01-A6-177-33/UCB
Activity Pattern Study of California Residents
CA AIR RESOURCES BOARD
STATUS: Start Date - 01/86 Expected Completion - 12/87
CONTACT: J.A. Wiley

CA01-A6-179-32
Southern California Air Quality Study (SCAQS)
CA AIR RESOURCES BOARD
STATUS: Start Date - 01/87 Expected Completion - 12/87
CONTACT: R. Rasmussen

CA01-A6-199-32
Costs of Reducing Aromatics and Sulfur Levels in Motor Vehicle Fuels
CA AIR RESOURCES BOARD
STATUS: Start Date - 01/87 Expected Completion - 12/87
CONTACT: J. Felten (ADLittle)

CA01-A6-204-32
Control of Benzene Emissions from Light Duty Vehicles
CA AIR RESOURCES BOARD
STATUS: Start Date - 01/87 Expected Completion - 12/87
CONTACT: L. Smith (SRI)

CA01-CA-OR-3
Emissions of Volatile and Potentially Toxic Organic Compounds from Waste Water Treatment Plants and Collection Systems (Phase 2)
CA AIR RESOURCES BOARD
STATUS: Start Date - 01/87 Expected Completion - 12/87
CONTACT: D.P.Y. Chang

CA01-CA-OR-4
Genotoxicity of Diesel Exhaust Particles and Vapors Collected from Engines With and Without Particulate Trap Oxidizers
CA AIR RESOURCES BOARD
STATUS: Start Date - 01/86 Expected Completion - 12/88
CONTACT: R. Rasmussen

CA01-CA-OR-5
Residential Indoor-Outdoor Radon Study
CA AIR RESOURCES BOARD
STATUS: Start Date - 01/86 Expected Completion - 12/87
CONTACT: K. Shen-Liu

CA01-OR-1
Evaluation and Improvement of Methods for the Sampling and Analysis of Selected Toxic Air Contaminants
CA AIR RESOURCES BOARD
STATUS: Start Date - 01/87 Expected Completion - 12/87
CONTACT: Michael Holdren

CA01-OR-2
Methods Development for Assessment of Vapor Phase Mutagens and Carcinogens in Ambient Air
CA AIR RESOURCES BOARD
STATUS: Start Date - 01/87 Expected Completion - 12/88
CONTACT: D.P.H. Hsieh (UCD)

FL02ARS0002
THE ARS PROJECT (AGGREGATE REDUCED SULFUR)
BIO-ENVIRONMENTAL SERVICES DIV., CITY OF JACKSONVILLE
STATUS: Start Date - Expected Completion -
CONTACT: CHARLES PADGETT (904) 630-3666

FL02 KPDT0001
1987-1988 NMOC/NOX SUMMER STUDY (AMBIENT MONITORING)
BIO-ENVIRONMENTAL SERVICES DIV., CITY OF JACKSONVILLE
STATUS: Start Date - 06/87 Expected Completion - 10/88
CONTACT: SIBLY CARLEY (904) 630-3666

IL01-001
An Ongoing Survey of Genetic Toxicity of Air Particulates
IL ENV. PROT. AGENCY, DIV. OF AIR POLLUTION CONTROL
STATUS: Start Date - Expected Completion -
CONTACT: Mike Stoneberger (217) 524-6489

IL01-871026
Bacterial Emissions from Incineration of Hospital Waste
IL ENV. PROT. AGENCY, DIV. OF AIR POLLUTION CONTROL
STATUS: Start Date - Expected Completion -
CONTACT: Mike Stoneberger (217) 524-6489

IL01-871037
Waste to Energy Recovery of Refuse as an Alternative to Landfill in Illinois
IL ENV. PROT. AGENCY, DIV. OF AIR POLLUTION CONTROL
STATUS: Start Date - Expected Completion -
CONTACT: Mike Stoneberger (217) 524-6489

IL01-871065
Interaction of Liberated Aluminum from a Coal-fired Electric Power Plant with a Hardwood Forest Ecosystem in Southwestern Illinois
IL ENV. PROT. AGENCY, DIV. OF AIR POLLUTION CONTROL
STATUS: Start Date - Expected Completion -
CONTACT: Mike Stoneberger (217) 524-6489

IL01-871113
Guide to Reduction of Indoor Radon in Illinois Homes
IL ENV. PROT. AGENCY, DIV. OF AIR POLLUTION CONTROL
STATUS: Start Date - Expected Completion -
CONTACT: Mike Stoneberger (217) 524-6489

IL01-871116
Municipal Incinerator Emission Limits
IL ENV. PROT. AGENCY, DIV. OF AIR POLLUTION CONTROL
STATUS: Start Date - Expected Completion -
CONTACT: Mike Stoneberger (217) 524-6489

IL01-881033
Review of State of the Art of Measuring Environmental Benefits
IL ENV. PROT. AGENCY, DIV. OF AIR POLLUTION CONTROL
STATUS: Start Date - Expected Completion -
CONTACT: Mike Stoneberger (217) 524-6489

IL01-881128
An Anlaysis of Industrial Reporting Requirements for Toxic Materials: A Mass Balance Accounting
IL ENV. PROT. AGENCY, DIV. OF AIR POLLUTION CONTROL
STATUS: Start Date - Expected Completion -
CONTACT: Mike Stoneberger (217) 524-6489

IL01-881145
Air Monitoring Survey Design for Air Toxic Pollutants in an Urban Environment
IL ENV. PROT. AGENCY, DIV. OF AIR POLLUTION CONTROL
STATUS: Start Date - Expected Completion -
CONTACT: Mike Stoneberger (217) 524-6489

1N03-01
EVALUATION OF CREMATORY EMISSIONS IN INDIANAPOLIS
INDIANAPOLIS AIR POLLUTION CONTROL DIVISION
STATUS: Start Date - 05/89 Expected Completion - 05/90
CONTACT: CHERYL CARLSON (317) 633-5482

MT01 WESTVERM
WESTERN VERMICULITE PERMIT REVIEW AND EIS
MT DEPT. OF HEALTH AND ENV. SCIENCES, AIR QUALITY BUREAU
STATUS: Start Date - 10/87 Expected Completion - 10/89
CONTACT: ROBERT RAISCH (406) 444-3454

NJ01 PROJECT 29529
THE TOTAL HUMAN ENVIRONMENTAL EXPOSURE STUDY (THEES) TO BENZO(A)PYRENE
NJ DEPT. OF ENV. PROT., BUR. OF AIR POLLUTION CONTROL
STATUS: Start Date - 06/86 Expected Completion - 05/90
CONTACT: DR. JAMES BUTLER (609) 292-9692

NJ01 PROJECT 29955
DEVELOPMENT OF A HUMAN EXHALED BREATH SAMPLING SYSTEM
NJ DEPT. OF ENV. PROT., BUR. OF AIR POLLUTION CONTROL
STATUS: Start Date - 07/87 Expected Completion - 12/89
CONTACT: DR. JAMES BUTLER (609) 292-9692

NY01PROJECT 002
RESULTS FROM THE ANALYSIS OF MSW INCINERATOR TESTING AT PEEKSKILL, N.Y.
NY DEPT OF ENV. CONSERVATION, DIV. OF AIR QUALITY
STATUS: Start Date - Expected Completion -
CONTACT: JOSEPH VISALLI (518) 465-6251

NY01PROJECT 003
RESULTS FROM THE ANALYSIS OF MSW INCINERATOR TESTING AT OSWEGO COUNTY, N.Y.
NY DEPT OF ENV. CONSERVATION, DIV. OF AIR QUALITY
STATUS: Start Date - Expected Completion -
CONTACT: JOSEPH VISALLI (518) 465-6251

NY01PROJECT 004
PHASE I RESOURCE RECOVERY-FACILITY EMISSION CHARACTERIZATION STUDY
NY DEPT OF ENV. CONSERVATION, DIV. OF AIR QUALITY
STATUS: Start Date - Expected Completion -
CONTACT: ROBERT KERR (518) 457-7454

OH04ETO
ETHYLENE OXIDE REGULATIONS
TOLEDO ENVIRONMENTAL SERVICES DIVISION
STATUS: Start Date - 1986 Expected Completion - 1990
CONTACT: JEFFREY TWADDLE (419) 693-0350

OK01PROJECT 2.3
OKLAHOMA AIR POLLUTION CONTROL REGULATION 2.3(REVISION)
OK DEPT. OF HEALTH, AIR QUALITY SERVICE
STATUS: Start Date - 02/88 Expected Completion - 12/89
CONTACT: N.P. COLEMAN (405) 271-5220

RI01002
AMBIENT ORGANICS IN OLNEYVILLE, RI AIR
RI DEPT OF ENV. MGMT., DIV. OF AIR & HAZ. MATERIALS
STATUS: Start Date - 03/88 Expected Completion - 07/89
CONTACT: BARBARA MORIN (401) 227-2808

VT01 RUTLAND RRF01
RUTLAND RESOURCE RECOVERY FACILITY SITE-SPECIFIC ENVIRONMENTAL ASSESSMENT
VT DEPT. ENVIRONMENTAL CONSERVATION, AIR POLLUTION CNT. DIV.
STATUS: Start Date - 11/87 Expected Completion - 08/88
CONTACT: BRIAN FITZGERALD (802) 244-8731

WA02 PSAPCA 10
JORGENSEN STEEL BAGHOUSE CHROMIUM EMISSIONS
PUGET SOUND AIR POLLUTION CONTROL AGENCY
STATUS: Start Date - 09/87 Expected Completion - 12/87
CONTACT: FRED AUSTIN (206) 296-7334

WA02 PSAPCA 12
URBAN AIR TOXICS MITIGATION STUDY - PHASE II
PUGET SOUND AIR POLLUTION CONTROL AGENCY
STATUS: Start Date - 07/88 Expected Completion - 07/89
CONTACT: MAGGIE CORBIN (206) 296-7335

WA02 PSAPCA 7
RECEPTOR MODELING FEASIBILITY STUDY
PUGET SOUND AIR POLLUTION CONTROL AGENCY
STATUS: Start Date - 12/86 Expected Completion - 12/87
CONTACT: JIM NOLAN (206) 296-7334

WA02 PSAPCA 8
URBAN AIR TOXICS MITIGATION STUDY - PHASE I
PUGET SOUND AIR POLLUTION CONTROL AGENCY
STATUS: Start Date - 02/87 Expected Completion - 06/88
CONTACT: NAYDENE MAYKUT (206) 296-7335

WA02 PSAPCA 9
WYNDVALLEY - DEVELOPMENT OF A NONGUIDELINE AIR STAGNATION DIFFUSION MODEL
PUGET SOUND AIR POLLUTION CONTROL AGENCY
STATUS: Start Date - 09/87 Expected Completion - 06/89
CONTACT: G.S. PADE (206) 296-7435

WA02PSAPCA 11
PM10 PROBLEM AREA IDENTIFICATION
PUGET SOUND AIR POLLUTION CONTROL AGENCY
STATUS: Start Date - 07/88 Expected Completion - 07/89
CONTACT: MAGGIE CORBIN (206) 296-7335

WY01 PROJECT 001
SURVEY OF WOOD USE FOR RESIDENTIAL WOODBURNING IN SHERIDAN AND LANDER, WYOMING
WY DEPT. OF ENV. QUALITY, AIR QUALTIY DIV.
STATUS: Start Date - 01/88 Expected Completion - 06/88
CONTACT: BERNARD DAILEY (307) 777-7391

WY01 PROJECT 002
ASSESSMENT OF EMISSIONS FROM ADJACENT INDUSTRIES IMPACTING THE BROOKHURST SUBDIVISION, NATRONA COUNTY, WYOMING
WY DEPT. OF ENV. QUALITY, AIR QUALTIY DIV.
STATUS: Start Date - 06/88 Expected Completion - 12/88
CONTACT: TERESA PERKINS (307) 777-7391

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Information Gathering and Risk Analysis of Existing Data on Phenylethanol and Phenylethanol Acetate (CL-BIB-0077)

Risk Analysis of Existing Data on Phthalimide (CL-BIB-0079)

Temporal Factors Influencing Carcinogenicity of Industrial Chemicals (CL-BIB-0190)

Mortality Study of Chemical Plants in Kanawha Valley, West Virginia (CL-BIB-0221)

Investigation of Workers Exposed to MBOCA (CL-BIB-0225)

Morbidity and Reproductive Study of U.S. Chemical Workers (CL-BIB-0236)

Industrywide Study of Workers Exposed to 4,4'-Methylenedianiline (MDA) (CL-BIB-0239)

Mortality Study of Workers Exposed to Toluene Diisocyanate (CL-BIB-0243)

Case-Control Mortality Study of Nitroglycerin-Exposed Workers (CL-BIB-0247)

Acrolein Emissions Update (CL-BIB-0254)

Hazardous Organic NESHAP (CL-BIB-0261)

Chlorofluorocarbon Chemical Substitutes (CL-BIB-0324)

An Assessment of the Effectiveness of OSHA's Lead Standard (CL-BIB-0413)

Evaluation of Methylene Chloride Emissions from a Pharmaceutical Facility (CL-BIB-0537)

Evaluation of 1,3-Butadiene Emissions from a Styrene-Butadiene Latex Production Facility Before and After Controls (CL-BIB-0539)

Evaluation of Carbon Tetrachloride Emissions from an Agricultural and Industrial Chemical Production Facility (CL-BIB-0554)

Evaluation of Potentially Toxic VOC Emissions from a Pesticide and Agricultural Chemical Production Facility (CL-BIB-0555)

Benzene II (CL-BIB-0585)

CHEMICALS AND ALLIED PRODUCTS (28) (cont.)

Health Effects Testing of Isopropanol (CL-BIB-0619)

Health Effects Testing of Commercial Hexane and Diethylene Glycol Butyl Ether (DGBE) (CL-BIB-0622)

CHLORDANE (57-74-9)

Chlordane/Radon Mitigation Project (CL-BIB-0338)

ATSDR Toxicological Profiles (CL-BIB-0618)

CHLORINE (7782-50-5)

Decision on Regulation of Chlorine and Hydrochloric Acid Under the Clean Air Act (CL-BIB-0037)

Health Assessment Document for Chlorine and Hydrogen Chloride, External Review (CL-BIB-0280)

CHLORODIBROMOMETHANE (124-48-1)

URBAN AIR TOXICS PROGRAM (MO01 MONITORING 1)

CHLOROETHANE (75-00-3)

Decision on Regulation of Ethyl Chloride Under the Clean Air Act (CL-BIB-0268)

ATSDR Toxicological Profiles (CL-BIB-0618)

URBAN AIR TOXICS PROGRAM (MO01 MONITORING 1)

CHLOROFLUOROCARBONS (CL-CFC)

Chlorofluorocarbon Chemical Substitutes (CL-BIB-0324)

Survey of Chlorofluorocarbon Destruction Techniques (CL-BIB-0503)

CHLOROFLUOROMETHANE (593-70-4)

Chlorofluorocarbon Chemical Substitutes (CL-BIB-0324)

CHLOROFORM (67-66-3)

Hazardous Organic NESHAP (CL-BIB-0261)

Analysis of Non-Methane Organic Compounds (NMOC) Canisters for Selected Organic Compounds by GC/MSD (CL-BIB-0536)

Evaluation of a Modified Method for Measuring Emissions of Chlorinated Solvents from Stationary Sources (CL-BIB-0588)

URBAN AIR TOXICS PROGRAM (MO01 MONITORING 1)

DEVELOPMENT OF A HUMAN EXHALED BREATH SAMPLING SYSTEM (NJ01 PROJECT 29955)

CHLOROMETHYLETHER,BIS (542-88-1)
ATSDR Toxicological Profiles (CL-BIB-0618)

CHROMIUM (7440-47-3)
Fate of Hexavalent Chromium in the Atmosphere (CA01-A6-096-32)

Estimating Exposure to Arsenic, Beryllium, Cadmium, Chromium, and Nickel From Coal and Oil Combustion (CL-BIB-0029)

Mortality and Industrial Hygiene Characteristics of Workers Exposed to Lead Chromate Paints - NCI (CL-BIB-0228)

Health Assessment for Chromium, Update (CL-BIB-0279)

Field Testing and Method Evaluation for Industrial Cooling Towers (CL-BIB-0360)

Field Testing and Method Evaluation of Chrome Electroplating Plants (CL-BIB-0361)

Chromium Electroplating NESHAP Development (CL-BIB-0384)

Industrial Cooling Towers Chromium NESHAP Development (CL-BIB-0385)

Field Test Evaluation of a Methodology for Measuring Emissions of Selected Toxic Metals from Stationary Sources (CL-BIB-0455)

Locating and Estimating Air Emissions from Sources of Chromium (CL-BIB-0544)

Evaluation of Chromium Emissions from a Specialty Steel Plant (CL-BIB-0575)

Development of Control Strategies for Chromium Emissions from Chrome Plating Facilities (CL-BIB-0579)

URBAN AIR TOXICS PROGRAM (M001 MONITORING 1)

RUTLAND RESOURCE RECOVERY FACILITY SITE-SPECIFIC ENVIRONMENTAL ASSESSMENT (VT01 RUTLAND RRF01)

JORGENSEN STEEL BAGHOUSE CHROMIUM EMISSIONS (WA02 PSAPCA 10)

CHROMIUM (VI) COMPOUNDS (18540-29-9)
Fate of Hexavalent Chromium in the Atmosphere (CA01-A6-096-32)

CHRYSOTILE (12001-29-5)
Evaluation of Mesothelioma Production by Asbestos Substitutes (CL-BIB-0162)

CL-ACID (ACIDIC COMPOUNDS)
Analysis of Acid Precipitation Samples Collected in West Virginia, Delaware, and Maryland (CL-BIB-0147)

CL-ALDEHYD (ALDEHYDES)
Urban Air Toxics Monitoring Program (CL-BIB-0353)

Residential Wood Combustion and Automotive Emissions on the Boise, Idaho Air Shed (CL-BIB-0407)

Evaluation of Emissions and Control Options at Waferboard Plants (CL-BIB-0617)

CL-BACT (BACTERIA)
Test Method Development for Pathogen Monitoring of Medical Waste Incinerators (CL-BIB-0546)

Bacterial Emissions from Incineration of Hospital Waste (IL01-871026)

CL-CARBON (TOTAL CARBON)
Study to Define and Determine Mitigation Methods for Air Toxics in Puget Sound (CL-BIB-0297)

CL-CARCIN (CARCINOGENS)
Methods Development for Assessment of Vapor Phase Mutagens and Carcinogens in Ambient Air (CA01-OR-2)

Identify and Evaluate Toxic Components of Air Pollution (CL-BIB-0111)

Integrated Air Cancer Project (CL-BIB-0115)

Integrated Air Cancer Project (IACP) (CL-BIB-0408)

Particulate Matter-Organic Compounds Interactions on Municipal Incinerator Flyash (CL-BIB-0456)

Chemical Fractionation and Analysis of China Coal Combustion Emission Samples (CL-BIB-0516)

CL-CFC (CHLOROFLUOROCARBONS)
Chlorofluorocarbon Chemical Substitutes (CL-BIB-0324)

Survey of Chlorofluorocarbon Destruction Techniques (CL-BIB-0503)

CL-COE (COKE OVEN EMISSIONS)
Coke Oven Emissions: Charging, Topside Leaks, Door Leaks NESHAP (CL-BIB-0012)

CL-COTDUST (COTTON DUST)

CL-COTDUST (COTTON DUST) (cont.)

Comparative Research in Analytical Pathology (CL-BIB-0216)

Endotoxins in Bulk Cotton and Airborne Dusts (CL-BIB-0567)

CL-DIESEL (DIESEL FUEL EMISSIONS)

Genotoxicity of Diesel Exhaust Particles and Vapors Collected from Engines With and Without Particulate Trap Oxidizers (CA01-CA-OR-4)

Mortality of Diesel Exposed Miners (CL-BIB-0213)

Case-Control Study of Lung Cancer in Teamsters Union (CL-BIB-0242)

Chemical Analysis of Particulate Filters (Colorado) (CL-BIB-0445)

Denver Brown Cloud Study #2 (CL-BIB-0623)

CL-DIOXIN (DIOXINS)

Study of Ambient Concentrations of Chlorinated Dibenzodioxins and Dibenzofurans in Urban Areas in the South Coast Air Basin (CA01-A6-100-32)

Morbidity and Reproductive Study of U.S. Chemical Workers (CL-BIB-0236)

Field Testing of Municipal Waste Combustors (CL-BIB-0362)

Decision on Regulation of Dioxins/Furans Under the Clean Air Act (CL-BIB-0383)

Development of New Methods for SW846 (CL-BIB-0405)

Monitoring Ambient Air for Dioxins (CL-BIB-0490)

Development and Validation of an Emission Test Method for Dioxins (CL-BIB-0589)

Monitoring of Dioxin at Dioxin Removal Sites (CL-BIB-0613)

CL-ETS (ENVIRONMENTAL TOBACCO SMOKE)

Retrospective Cohort Investigation of Non-Asbestos Welders (CL-BIB-0240)

Case-Control Study of Lung Cancer in Teamsters Union (CL-BIB-0242)

Uranium Miners-Low Dose Investigation (CL-BIB-0244)

Case-Control Mortality Study of Nitroglycerin-Exposed Workers (CL-BIB-0247)

CL-ETS (ENVIRONMENTAL TOBACCO SMOKE) (cont.)

Environmental Tobacco Smoke Risk Evaluation (CL-BIB-0339)

Environmental Tobacco Smoke Manual (CL-BIB-0340)

New Studies of Population Exposure to VOCs and Major Sources of Exposure (CL-BIB-0498)

Assessment of Health Effects from Indoor Air Pollutants (CL-BIB-0591)

CL-FURAN (FURANS)

Study of Ambient Concentrations of Chlorinated Dibenzodioxins and Dibenzofurans in Urban Areas in the South Coast Air Basin (CA01-A6-100-32)

Field Testing of Municipal Waste Combustors (CL-BIB-0362)

Decision on Regulation of Dioxins/Furans Under the Clean Air Act (CL-BIB-0383)

CL-HAZWAST (HAZARDOUS WASTES)

Exposure/Risk Assessment on Air Emissions From Treatment, Storage and Disposal Facilities (CL-BIB-0030)

Potential for Air Releases From CERCLA Sites (CL-BIB-0055)

Field Assessment of Waste Pretreatment at Refinery Land Treatment Facilities (CL-BIB-0141)

Engineering Study: Standards Development for Hazardous Waste Treatment, Storage, and Disposal Facilities (CL-BIB-0257)

Methods Development for Sampling Hazardous Waste Emissions from Stacks (CL-BIB-0289)

Assessment of Air Quality Impacts from Superfund Sites (CL-BIB-0371)

Dilution Sampling System (CL-BIB-0477)

Air Emissions from Hazardous Waste Stabilization (CL-BIB-0484)

CL-HCARB (HYDROCARBONS)

Determination of Population Exposure to Mobile Source Pollutants (CL-BIB-0406)

New Studies of Population Exposure to VOCs and Major Sources of Exposure (CL-BIB-0498)

CL-HERB (HERBICIDES)

Dilution Sampling System (CL-BIB-0477)

CL-IAP (INDOOR AIR POLLUTANTS)

Indoor Air Quality Research (CL-BIB-0290)

Manual on Indoor Air Quality Problems in Commerical Buildings (CL-BIB-0341)

Indoor Air Reference Data Base (CL-BIB-0379)

Introductory Indoor Air Quality (IAQ) Course for State and Local Public Health Officials (CL-BIB-0394)

TEAM Study: Indoor Air; Particle Study (CL-BIB-0419)

Baltimore Integrated Management Project (IMP) (CL-BIB-0423)

Guidelines for Collection of Data Pertaining to Consumer Exposure in Residential Settings (CL-BIB-0439)

Evaluation of Contaminant Migration in Indoor Air in Homes (CL-BIB-0440)

Chamber Studies Characterizing the Organic Emissions from Kerosene Space Heaters: Phase II (CL-BIB-0449)

The Influence of Woodburning on the Mutagenicity of Air Outdoor and Indoors (CL-BIB-0457)

The Particle Total Exposure Assessment Methodology (CL-BIB-0460)

GC/MS Analysis of Woodstove and Oil-fired Home Heating Unit Emissions and Ambient Samples from Impacted Areas (CL-BIB-0467)

Indoor Dispersion/Ventilation Model (CL-BIB-0469)

Low Cost Personal Monitoring Devices for Indoor Air (CL-BIB-0471)

Compendium of Indoor Air Quality Measurement Methods (CL-BIB-0472)

Indoor Air Pollution Mitigation Technology Research (CL-BIB-0476)

Emissions Data Base for Indoor Air Sources (CL-BIB-0507)

Evaluation of Factors that Influence Acceptable Indoor Air Quality (CL-BIB-0549)

New Home Construction Guide for Preventing Indoor Air Problems in New Homes (CL-BIB-0550)

CL-IAP (INDOOR AIR POLLUTANTS) (cont.)

Staten Island-New Jersey Urban Air Toxics Assessment Program (CL-BIB-0553)

National Bureau of Standards General Indoor Air Pollution Concentration Model (CL-BIB-0586)

Assessment of Health Effects from Indoor Air Pollutants (CL-BIB-0591)

CL-INORGAN (INORGANIC COMPOUNDS)

Multimedia, Multipollutant Field Study to Establish Levels of Toxics Contained in Air, Soil, Sediments, Water and Agricultural Products from a Model Municipal Waste Combustor (CL-BIB-0389)

CL-METAL (METALLIC COMPOUNDS)

Estimating Exposure to Arsenic, Beryllium, Cadmium, Chromium, and Nickel From Coal and Oil Combustion (CL-BIB-0029)

Contra Costa Exposure Study (CL-BIB-0157)

Methods Development for Sampling Hazardous Waste Emissions from Stacks (CL-BIB-0289)

Monitoring Human Exposure to Hazardous Air Pollutants (HAPs) (CL-BIB-0291)

Study to Define and Determine Mitigation Methods for Air Toxics in Puget Sound (CL-BIB-0297)

Ambient Air Monitoring in Portland, Oregon (Urban Soup) (CL-BIB-0298)

Reproposal of Regulation for Boilers, Industrial Furnaces, and Incinerators That Use Hazardous Waste as Fuel (CL-BIB-0386)

Determination of Population Exposure to Mobile Source Pollutants (CL-BIB-0406)

The Particle Total Exposure Assessment Methodology (CL-BIB-0460)

Study on the Formation of Aerosols and Particulates from the Incineration of Metals (CL-BIB-0475)

Staten Island-New Jersey Urban Air Toxics Assessment Program (CL-BIB-0553)

Assessment of the Controllability of Condensible Emissions (CL-BIB-0569)

Analysis of Emissions from Tire Burning (CL-BIB-0576)

CL-METAL (METALLIC COMPOUNDS) (cont.)

Emission Factor Development for PM10 and Metals from Outdoor Abrasive Blasting (CL-BIB-0577)

CL-METOXBZ (METHOXYBENZENE COMPOUNDS)

GC/MS Analysis of Woodstove and Oil-fired Home Heating Unit Emissions and Ambient Samples from Impacted Areas (CL-BIB-0467)

CL-MINFIB (MINERAL FIBERS)

Decision on Regulation of Mineral Fibers Under the Clean Air Act (CL-BIB-0043)

Pulmonary Response to Inhaled Fibrogenic Minerals (CL-BIB-0308)

Health Assessment Document for Mineral Fibers (CL-BIB-0372)

CL-NMHC (NON-METHANE HYDROCARBONS)

Analysis of Non-Methane Organic Compounds (NMOC) Canisters for Selected Organic Compounds by GC/MSD (CL-BIB-0536)

1987-1988 NMOC/NOX SUMMER STUDY (AMBIENT MONITORING) (FL02 KPDT0001)

CL-ORGANIC (ORGANIC COMPOUNDS)

Atmospheric Measurements of Trace Hazardous Organic Chemicals (CL-BIB-0103)

Contra Costa Exposure Study (CL-BIB-0157)

Study to Define and Determine Mitigation Methods for Air Toxics in Puget Sound (CL-BIB-0297)

Ambient Air Monitoring in Portland, Oregon (Urban Soup) (CL-BIB-0298)

Weight of Evidence (CL-BIB-0349)

Multimedia, Multipollutant Field Study to Establish Levels of Toxics Contained in Air, Soil, Sediments, Water and Agricultural Products from a Model Municipal Waste Combustor (CL-BIB-0389)

Integrated Solvents Workgroup (CL-BIB-0437)

Sources of Fine Particle Organic Matter in Boise (CL-BIB-0451)

Particulate Matter-Organic Compounds Interactions on Municipal Incinerator Flyash (CL-BIB-0454)

Indoor Air Pollution Mitigation Technology Research (CL-BIB-0476)

CL-ORGANIC (ORGANIC COMPOUNDS) (cont.)

Summary Review of Health Effects Associated with Organic Phosphorous: Health Issue Assessment (CL-BIB-0562)

Assessment of the Controllability of Condensible Emissions (CL-BIB-0569)

Revisions to the Technical Assistance Document for the Sampling and Analysis of Toxic Organic Compounds in Ambient Air (CL-BIB-0587)

CL-PAH (POLYCYCLIC AROMATIC COMPOUNDS)

A survey of Ambient Concentrations of Selected Polycyclic Aromatic Compounds (PAHs) at Various Locations in California (CA01-A5-185-32)

Chemical Analysis of Particulate Filters (Colorado) (CL-BIB-0445)

GC/MS Analysis of Woodstove and Oil-fired Home Heating Unit Emissions and Ambient Samples from Impacted Areas (CL-BIB-0467)

Field Evaluation of Sampling and Analysis for Organic Pollutants in Indoor Air (CL-BIB-0515)

Statistical Comparison of Results of Two Indoor Air Pilot Studies (CL-BIB-0521)

Field Evaluation of Methodology for Semi-Volatile Compounds (CL-BIB-0523)

CL-PCO (PHOTOCHEMICAL OXIDENTS)

Hazardous Air Pollutants in the Urban Environment (CL-BIB-0104)

CL-PEST (PESTICIDES)

Update of Completed Cohort Mortality Studies - NCI (CL-BIB-0227)

Dilution Sampling System (CL-BIB-0477)

Evaluation of Potentially Toxic VOC Emissions from a Pesticide and Agricultural Chemical Production Facility (CL-BIB-0555)

CL-PHARM (PHARMACEUTICALS)

Evaluation of Methylene Chloride Emissions from a Pharmaceutical Facility (CL-BIB-0537)

CL-PHTH (PHTHALATES)

Data Gathering and Risk Analysis of Existing Data on Dimethoxyethyl Phthalate and Other Phthalate Esters (CL-BIB-0076)

CL-PM (PARTICULATE MATTER)

Pilot Investigation of Indoor-Outdoor and Personal PM10 and Ongoing Associated Ionic Compounds and Mutagenic Activity (CA01-A6-129-33)

CL-PM (PARTICULATE MATTER) (cont.)

Particulate and Tissue Analysis Service and Research (CL-BIB-0161)

Study to Define and Determine Mitigation Methods for Air Toxics in Puget Sound (CL-BIB-0297)

Ambient Air Monitoring in Portland, Oregon (Urban Soup) (CL-BIB-0298)

Field Testing of Municipal Waste Combustors (CL-BIB-0362)

Residential Wood Combustion and Automotive Emissions on the Boise, Idaho Air Shed (CL-BIB-0407)

Particulate Matter-Organic Compounds Interactions on Municipal Incinerator Flyash (CL-BIB-0434)

The Particle Total Exposure Assessment Methodology (CL-BIB-0460)

Study on the Formation of Aerosols and Particulates from the Incineration of Metals (CL-BIB-0473)

Indoor Air Pollution Mitigation Technology Research (CL-BIB-0476)

Quality Assurance for Measurement of Variables When Using Proposed Method 5G for Wood Heater Certification Testing (CL-BIB-0481)

Development of Continuous Emission Monitoring Guidelines for Municipal Waste Combustion (CL-BIB-0547)

Method Development for Condensible Particulate Matter Monitoring (CL-BIB-0548)

Analysis of Emissions from Tire Burning (CL-BIB-0576)

Emission Factor Development for PM10 and Metals from Outdoor Abrasive Blasting (CL-BIB-0577)

PM10 Monitoring Program to Evaluate Wood Smoke Impacts in Sitka (CL-BIB-0580)

Assessment of Health Effects from Indoor Air Pollutants (CL-BIB-0591)

Quality Assurance for Measurement of Variables When Using Method 28A for Wood Heater Certification Testing (CL-BIB-0615)

Quality Assurance for Measurement of Variables When Using Method 28 for Wood Heater Certification Testing (CL-BIB-0616)

CL-PM (PARTICULATE MATTER) (cont.)

Evaluation of Emissions and Control Options at Waferboard Plants (CL-BIB-0617)

Denver Brown Cloud Study #2 (CL-BIB-0623)

An Ongoing Survey of Genetic Toxicity of Air Particulates (IL01-001)

CL-RAD (RADIATION)

Radionuclides NESHAPS (CL-BIB-0364)

CL-SEWSLUD (SEWAGE SLUDGE)

Field Assessment of Waste Pretreatment at Refinery Land Treatment Facilities (CL-BIB-0141)

Development of Risk Assessment Methodology for Municipal Sludge Incineration (CL-BIB-0594)

CL-SOLVENT (SOLVENTS)

Chlorofluorocarbon Chemical Substitutes (CL-BIB-0324)

Integrated Solvents Workgroup (CL-BIB-0437)

Analysis of Semivolatile Compounds in Passive Air Samples by On-Line Supercritical Fluid Extraction/Gas Chromatography (CL-BIB-0473)

Evaluation of a Modified Method for Measuring Emissions of Chlorinated Solvents from Stationary Sources (CL-BIB-0588)

Health Effects Testing of Isopropanol (CL-BIB-0619)

CL-SVOC (SEMIVOLATILE ORGANIC COMPOUNDS)

Field Assessment of Waste Pretreatment at Refinery Land Treatment Facilities (CL-BIB-0141)

Toxics Air Monitoring Systems (TAMS) (CL-BIB-0286)

Methods Development for Sampling Hazardous Waste Emissions from Stacks (CL-BIB-0289)

Development of New Methods for SW846 (CL-BIB-0405)

Chamber Studies Characterizing the Organic Emissions from Kerosene Space Heaters: Phase II (CL-BIB-0449)

The Particle Total Exposure Assessment Methodology (CL-BIB-0460)

CL-SVOC (SEMIVOLATILE ORGANIC COMPOUNDS) (cont.)

Analysis of Semivolatile Compounds in Passive Air Samples by On-Line Supercritical Fluid Extraction/Gas Chromatography (CL-BIB-0473)

A High-Efficiency, High-Volume Compound Annular Denuder Sampler for Phase-Distributed Semi-Volatile Organic Chemicals (CL-BIB-0517)

Field Evaluation of Methodology for Semi-Volatile Compounds (CL-BIB-0523)

Analysis of Emissions from Tire Burning (CL-BIB-0576)

CL-TIN (ORGANIC TIN COMPOUNDS)

Epidemiologic and Industrial Hygiene Support of Toxic Substance Control Act - EPA (CL-BIB-0232)

CL-VARIOUS (VARIOUS)

Southern California Air Quality Study (SCAQS) (CA01-A6-179-32)

Hazardous Air Pollutants in the Urban Environment (CL-BIB-0104)

Determine Pulmonary Dose-Response Relationships (CL-BIB-0108)

Determine Neurotoxic Dose-Response Relationships (CL-BIB-0109)

Characterize Genotoxic Dose-Response Relationships (CL-BIB-0110)

Identify and Evaluate Toxic Components of Air Pollution (CL-BIB-0111)

Determine the Significance of Neurotoxic Response Indicators (CL-BIB-0112)

Develop Methods to Identify Reproductive Toxicity of Air Pollutants (CL-BIB-0114)

Particulate and Tissue Analysis Service and Research (CL-BIB-0161)

Methodologies for Worksite Neurotoxicity Evaluations (CL-BIB-0169)

Medical, Biometric and Industrial Hygiene Study of Emerging Problems (CL-BIB-0230)

Health Hazard Evaluations and Technical Assistance (CL-BIB-0231)

Uranium Miners-Low Dose Investigation (CL-BIB-0244)

Access to National Occupational Hazard Survey Data Base Profile Development (CL-BIB-0252)

CL-VARIOUS (VARIOUS) (cont.)

Monitoring Human Exposure to Hazardous Air Pollutants (HAPs) (CL-BIB-0291)

Cellular and Molecular Cardiac Toxicology (CL-BIB-0303)

Urban Air Toxics Monitoring Program (CL-BIB-0353)

Reportable Quantities Regulations (CL-BIB-0354)

Interpreted Role of Federally Permitted Releases (CL-BIB-0355)

Urban Air Toxics Program (CL-BIB-0359)

Integrated Risk Information System (IRIS) (CL-BIB-0363)

OCMS/DEGADIS Modeling Improvements (CL-BIB-0369)

Investigation, Documentation and Testing of a Proposed Wet Deposition and Related Algorithms to ISC Models (CL-BIB-0370)

Reproposal of Regulation for Boilers, Industrial Furnaces, and Incinerators That Use Hazardous Waste as Fuel (CL-BIB-0386)

Studies on Toxicity Applicable to Risk Assessment (STARA) (CL-BIB-0390)

Source Category Parameters (CL-BIB-0391)

The Toxic Interaction Database, MIXTOX (CL-BIB-0392)

SARA Title IV Report to Congress (CL-BIB-0393)

Archive and Evaluate Selected Air Toxics Dispersion Models (CL-BIB-0399)

Toxic Chemical Testing for Assessment Exposure Monitoring Systems Development (CL-BIB-0401)

Case-Control Survey to Test Hypotheses Generated by Computer Maps (CL-BIB-0414)

TEAM Study: Indoor Air: Particle Study (CL-BIB-0419)

Baltimore Integrated Management Project (IMP) (CL-BIB-0423)

Study of Exposure to Anti-Microbials (CL-BIB-0432)

General Quantitative Risk Assessment Guidelines for Noncancer Health Effects (CL-BIB-0448)

CL-VARIOUS (VARIOUS) (cont.)

Northeast Cooperative Woodstove Study - Phases II and III (CL-BIB-0452)

Indoor Dispersion/Ventilation Model (CL-BIB-0469)

Dilution Sampling System (CL-BIB-0477)

Products of Incomplete Combustion (PICs) in Rotary Kiln Simulator (CL-BIB-0485)

Compilation and Evaluation of Air Toxics Monitoring Data in New England (CL-BIB-0534)

Scoping Study for Deposition Modeling of Entire Great Lakes (CL-BIB-0540)

1985 Emissions Deposition Modeling of Air Toxics in Lake Michigan Region (CL-BIB-0541)

Great Lakes Transboundary Air Toxics Project (CL-BIB-0542)

Locating and Estimating Air Emissions from Fossil Fuel Combustion (CL-BIB-0543)

Procedures for Estimating and Allocating Area Source Emissions of Air Toxics (CL-BIB-0545)

PIPQUIC (Program Integration Project - Queries Using Interactive Commands) (CL-BIB-0551)

Compiling Air Toxics Emission Inventories, Second Edition (CL-BIB-0552)

Puget Sound Air Toxics Deposition Study (CL-BIB-0581)

Evaluation of Modeling Procedures for Low Level Releases at Superfund Sites (CL-BIB-0584)

Evaluation of Methodologies for Determining Hepatic Effects of Inhaled Hazardous Pollutants (CL-BIB-0592)

Technical Support Document for Chemical Mixtures Guidelines (CL-BIB-0595)

Evaluation of the Biological Significance of Toxicological Effects (CL-BIB-0596)

Reducing Uncertainties in Risk Assessment (CL-BIB-0597)

CL-VOC (VOLATILE ORGANIC COMPOUNDS)

Study to Determine the Fate of Benzene Precursors in Gasoline (CA01-A5-128-32)

Comparison of Indoor and Outdoor Toxic Air Pollutant Levels in Several Southern California Communities (CA01-A5-174-33)

Control of Benzene Emissions from Light Duty Vehicles (CA01-A6-204-32)

Emissions of Volatile and Potentially Toxic Organic Compounds from Waste Water Treatment Plants and Collection Systems (Phase 2) (CA01-CA-OR-3)

Field Assessment of Waste Pretreatment at Refinery Land Treatment Facilities (CL-BIB-0141)

Engineering Study: Standards Development for Hazardous Waste Treatment, Storage, and Disposal Facilities (CL-BIB-0257)

Toxics Air Monitoring Systems (TAMS) (CL-BIB-0286)

Methods Development for Sampling Hazardous Waste Emissions from Stacks (CL-BIB-0289)

Monitoring Human Exposure to Hazardous Air Pollutants (HAPs) (CL-BIB-0291)

Process Evaluation of Ambient Air Monitoring Near a Sugar Beet Processing Plant in Idaho (CL-BIB-0296)

Develop Dosimetry Models for VOC Hazard Identification (CL-BIB-0350)

Reproposal of Regulation for Boilers, Industrial Furnaces, and Incinerators That Use Hazardous Waste as Fuel (CL-BIB-0386)

Toxic Chemical Testing for Assessment Exposure Monitoring Systems Development (CL-BIB-0401)

Development of New Methods for SW846 (CL-BIB-0405)

Residential Wood Combustion and Automotive Emissions on the Boise, Idaho Air Shed (CL-BIB-0407)

Neurobehavioral and Sensory Irritant Effects of Complex VOC Mixtures in Humans (CL-BIB-0421)

Chamber Studies Characterizing the Organic Emissions from Kerosene Space Heaters: Phase II (CL-BIB-0449)

CL-VOC (VOLATILE ORGANIC COMPOUNDS) (cont.)

Low Cost Personal Monitoring Devices for Indoor Air (CL-BIB-0471)

Compendium of Indoor Air Quality Measurement Methods (CL-BIB-0472)

Temporal Profile Analysis (CL-BIB-0474)

Air Emissions from Hazardous Waste Stabilization (CL-BIB-0484)

Products of Incomplete Combustion (PICs) in Rotary Kiln Simulator (CL-BIB-0485)

Baltimore Total Exposure Assessment Methodology (TEAM) VOC Study (CL-BIB-0497)

New Studies of Population Exposure to VOCs and Major Sources of Exposure (CL-BIB-0498)

Chemical Ionization Mass Spectrometry for Trace-Level Determination of Ambient Polar Volatile Organic Compounds (CL-BIB-0513)

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Development of a Mass Spectral Identification Scheme for Electron Impact Spectra of Volatile Compounds (CL-BIB-0519)

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Field Evaluation of Methodology for Semi-Volatile Compounds (CL-BIB-0523)

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Staten Island-New Jersey Urban Air Toxics Assessment Program (CL-BIB-0553)

Evaluation of Potentially Toxic VOC Emissions from a Pesticide and Agricultural Chemical Production Facility (CL-BIB-0555)

Field Assessment of Emissions from a Waste Stabilization Process (CL-BIB-0568)

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The Development of Emissions Estimation Procedures for Surface Impoundments (CL-BIB-0574)

Analysis of Emissions from Tire Burning (CL-BIB-0576)

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Assessment of Health Effects from Indoor Air Pollutants (CL-BIB-0591)

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Retrospective Cohort Investigation of Non-Asbestos Welders (CL-BIB-0240)

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The Influence of Woodburning on the Mutagenicity of Air Outdoor and Indoors (CL-BIB-0457)

Quality Assurance for Measurement of Variables When Using Proposed Method 5G for Wood Heater Certification Testing (CL-BIB-0481)

Investigation of the Blaze Icing KEJ1101 (Catalytic Woodstove) Operating Characteristics (CL-BIB-0504)

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Residential Wood Combustion Emissions Study (CL-BIB-0582)

Quality Assurance for Measurement of Variables When Using Method 28A for Wood Heater Certification Testing (CL-BIB-0615)

Quality Assurance for Measurement of Variables When Using Method 28 for Wood Heater Certification Testing (CL-BIB-0616)

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Engineering Study: Standards Development for Hazardous Waste Treatment, Storage, and Disposal Facilities (CL-BIB-0257)

Study to Define and Determine Mitigation Methods for Air Toxics in Puget Sound (CL-BIB-0297)

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Chlorofluorocarbon Chemical Substitutes (CL-BIB-0324)

Study of the Effects of Appliance Type and Operating Variables on Residential Wood Combustion Emissions (CL-BIB-0330)

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Locating and Estimating Air Emissions from Sources of Perchloroethylene and Trichloroethylene (CL-BIB-0356)

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Field Testing and Method Evaluation for Industrial Cooling Towers (CL-BIB-0360)

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Field Testing of Municipal Waste Combustors (CL-BIB-0362)

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Survey of Chlorofluorocarbon Destruction Techniques (CL-BIB-0503)

The Design and Installation of a Passive Radon Mitigation System (CL-BIB-0528)

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Assessment of VOC Emissions from Fiberglass Marine Craft Manufacturing (CL-BIB-0573)

Development of Control Strategies for Chromium Emissions from Chrome Plating Facilities (CL-BIB-0579)

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Radon Mitigation and Prevention Techniques for Schools and Workplaces (CL-BIB-0598)

New House Evaluation Program (New HEP) for Radon Reduction in New Construction (CL-BIB-0599)

Demonstration of Sealing and Passive Drain Tile and Subslab Ventilation for Radon Mitigation (CL-BIB-0600)

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House Evaluation Program to Evaluate the Cost and Effectiveness of Radon Mitigation Methods (CL-BIB-0603)

Investigation of Methodologies for Characterizing the Radon Potential of Building Sites (CL-BIB-0604)

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Chemical Analysis of Particulate Filters (Colorado) (CL-BIB-0445)

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Evaluation of Ethylene Oxide Emissions from an Artificial Kidney Dialysis Machine Production Facility (CL-BIB-0538)

Evaluation of 1,3-Butadiene Emissions from a Styrene-Butadiene Latex Production Facility Before and After Controls (CL-BIB-0539)

Scoping Study for Deposition Modeling of Entire Great Lakes (CL-BIB-0540)

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Decision on Regulation of Hydrocyanic Acid Under the Clean Air Act (CL-BIB-0264)

Decision on Regulation of Phosphorus Under the Clean Air Act (CL-BIB-0267)

Decision on Regulation of Ethyl Chloride Under the Clean Air Act (CL-BIB-0268)

Decision on Regulation of Dimethylamine Under the Clean Air Act (CL-BIB-0269)

Decision on Regulation of Selenium and Its Compounds Under the Clean Air Act (CL-BIB-0270)

Decision on Regulation of Phthalic Anhydride Under the Clean Air Act (CL-BIB-0271)

Decision on Regulation of Maleic Anhydride Under the Clean Air Act (CL-BIB-0276)

Decision on Regulation of Mercuric Chloride Under the Clean Air Act (CL-BIB-0277)

Decision on Regulation of Methanol Under the Clean Air Act (CL-BIB-0278)

Health Assessment for Chromium, Update (CL-BIB-0279)

Health Assessment Document for Chlorine and Hydrogen Chloride, External Review (CL-BIB-0280)

Development of Methods to Interpret Metabolism Data in Exposure Assessments (CL-BIB-0281)

Health Assessment for Trichloroethylene Cancer Update (CL-BIB-0282)

Toxics Air Monitoring Systems (TAMS) (CL-BIB-0286)

Methods Development for Sampling Hazardous Waste Emissions from Stacks (CL-BIB-0289)

Indoor Air Quality Research (CL-BIB-0290)

Monitoring Human Exposure to Hazardous Air Pollutants (HAPs) (CL-BIB-0291)

ENVIRONMENTAL PROTECTION AGENCY (EPA) (cont.)

Process Evaluation of Ambient Air Monitoring Near a Sugar Beet Processing Plant in Idaho (CL-BIB-0296)

Study to Define and Determine Mitigation Methods for Air Toxics in Puget Sound (CL-BIB-0297)

Ambient Air Monitoring in Portland, Oregon (Urban Soup) (CL-BIB-0298)

Chlorofluorocarbon Chemical Substitutes (CL-BIB-0324)

Study of the Effects of Appliance Type and Operating Variables on Residential Wood Combustion Emissions (CL-BIB-0330)

Chlordane/Radon Mitigation Project (CL-BIB-0338)

Environmental Tobacco Smoke Risk Evaluation (CL-BIB-0339)

Environmental Tobacco Smoke Manual (CL-BIB-0340)

Manual on Indoor Air Quality Problems in Commerical Buildings (CL-BIB-0341)

Asbestos NESHAP Demolition and Renovation Inspection Safety Procedures Workshop Manual (CL-BIB-0342)

Chemical Hazard Information Profile for Cyclohexylthiophthalimide (CL-BIB-0345)

Field Evaluation of a Heavy Gas Detection and Dispersion Approach Using a Whole Air Technique (CL-BIB-0347)

Refinement of a Detection and Analysis Approach to Volatile Organic Compound Release Characterization Using a Whole Air Technique (CL-BIB-0348)

Weight of Evidence (CL-BIB-0349)

Develop Dosimetry Models for VOC Hazard Identification (CL-BIB-0350)

Urban Air Toxics Monitoring Program (CL-BIB-0353)

Reportable Quantities Regulations (CL-BIB-0354)

Interpreted Role of Federally Permitted Releases (CL-BIB-0355)

Locating and Estimating Air Emissions from Sources of Perchloroethylene and Trichloroethylene (CL-BIB-0356)

ENVIRONMENTAL PROTECTION AGENCY (EPA) (cont.)

Locating and Estimating Air Emissions from Sources of 1,3-Butadiene (CL-BIB-0358)

Urban Air Toxics Program (CL-BIB-0359)

Field Testing and Method Evaluation for Industrial Cooling Towers (CL-BIB-0360)

Field Testing and Method Evaluation of Chrome Electroplating Plants (CL-BIB-0361)

Field Testing of Municipal Waste Combustors (CL-BIB-0362)

Integrated Risk Information System (IRIS) (CL-BIB-0363)

Radionuclides NESHAPS (CL-BIB-0364)

OOMS/DEGADIS Modeling Improvements (CL-BIB-0369)

Investigation, Documentation and Testing of a Proposed Wet Deposition and Related Algorithms to ISC Models (CL-BIB-0370)

Assessment of Air Quality Impacts from Superfund Sites (CL-BIB-0371)

Health Assessment Document for Mineral Fibers (CL-BIB-0372)

Health Assessment Document for Methyl Isocyanate (CL-BIB-0373)

Health Assessment Document for Toluene Diisocyanate (CL-BIB-0374)

Decision on Regulation of Epichlorohydrin Under the Clean Air Act (CL-BIB-0378)

Indoor Air Reference Data Base (CL-BIB-0379)

Decision on Regulation of Contaminant Asbestos Under the Clean Air Act (CL-BIB-0381)

Beryllium NESHAP Review (CL-BIB-0382)

Decision on Regulation of Dioxins/Furans Under the Clean Air Act (CL-BIB-0383)

Chromium Electroplating NESHAP Development (CL-BIB-0384)

Industrial Cooling Towers Chromium NESHAP Development (CL-BIB-0385)

Reproposal of Regulation for Boilers, Industrial Furnaces, and Incinerators That Use Hazardous Waste as Fuel (CL-BIB-0386)

ENVIRONMENTAL PROTECTION AGENCY (EPA) (cont.)

Multimedia, Multipollutant Field Study to Establish Levels of Toxics Contained in Air, Soil, Sediments, Water and Agricultural Products from a Model Municipal Waste Combustor (CL-BIB-0389)

Studies on Toxicity Applicable to Risk Assessment (STARA) (CL-BIB-0390)

Source Category Parameters (CL-BIB-0391)

The Toxic Interaction Database, MIXTOX (CL-BIB-0392)

SARA Title IV Report to Congress (CL-BIB-0393)

Introductory Indoor Air Quality (IAQ) Course for State and Local Public Health Officials (CL-BIB-0394)

Archive and Evaluate Selected Air Toxics Dispersion Models (CL-BIB-0399)

Toxic Chemical Testing for Assessment Exposure Monitoring Systems Development (CL-BIB-0401)

Development of New Methods for SW846 (CL-BIB-0405)

Determination of Population Exposure to Mobile Source Pollutants (CL-BIB-0406)

Residential Wood Combustion and Automotive Emissions on the Boise, Idaho Air Shed (CL-BIB-0407)

Integrated Air Cancer Project (IACP) (CL-BIB-0408)

TEAM Study: Indoor Air; Particle Study (CL-BIB-0419)

Neurobehavioral and Sensory Irritant Effects of Complex VOC Mixtures in Humans (CL-BIB-0421)

Baltimore Integrated Management Project (IMP) (CL-BIB-0423)

State Surveys (CL-BIB-0424)

House Evaluation Program (CL-BIB-0425)

Land Evaluation and Soil Gas Studies (CL-BIB-0426)

Study of Exposure to Anti-Microbials (CL-BIB-0432)

A Study of Formaldehyde from Pressed Wood Products (CL-BIB-0434)

ENVIRONMENTAL PROTECTION AGENCY (EPA) (cont.)

Revisions to the NESHAP Regulation (Section 112 of the Clean Air Act) for Asbestos (CL-BIB-0435)

Paradichlorobenzene (Used in Moth Repellents and Air Fresheners) (CL-BIB-0436)

Integrated Solvents Workgroup (CL-BIB-0437)

Computerized Consumer Exposure Model (CCEM) Development (CL-BIB-0438)

Guidelines for Collection of Data Pertaining to Consumer Exposure in Residential Settings (CL-BIB-0439)

Evaluation of Contaminant Migration in Indoor Air in Homes (CL-BIB-0440)

Chemical Analysis of Particulate Filters (Colorado) (CL-BIB-0445)

General Quantitative Risk Assessment Guidelines for Noncancer Health Effects (CL-BIB-0448)

Chamber Studies Characterizing the Organic Emissions from Kerosene Space Heaters: Phase II (CL-BIB-0449)

Sources of Fine Particle Organic Matter in Boise (CL-BIB-0451)

Northeast Cooperative Woodstove Study - Phases II and III (CL-BIB-0452)

Particulate Matter-Organic Compounds Interactions on Municipal Incinerator Flyash (CL-BIB-0454)

Field Test Evaluation of a Methodology for Measuring Emissions of Selected Toxic Metals from Stationary Sources (CL-BIB-0455)

The Influence of Woodburning on the Mutagenicity of Air Outdoor and Indoors (CL-BIB-0457)

The Particle Total Exposure Assessment Methodology (CL-BIB-0460)

GC/MS Analysis of Woodstove and Oil-fired Home Heating Unit Emissions and Ambient Samples from Impacted Areas (CL-BIB-0467)

Indoor Dispersion/Ventilation Model (CL-BIB-0469)

Low Cost Personal Monitoring Devices for Indoor Air (CL-BIB-0471)

Compendium of Indoor Air Quality Measurement Methods (CL-BIB-0472)

ENVIRONMENTAL PROTECTION AGENCY (EPA) (cont.)

Analysis of Semivolatile Compounds in Passive Air Samples by On-Line Supercritical Fluid Extraction/Gas Chromatography (CL-BIB-0473)

Temporal Profile Analysis (CL-BIB-0474)

Study on the Formation of Aerosols and Particulates from the Incineration of Metals (CL-BIB-0475)

Indoor Air Pollution Mitigation Technology Research (CL-BIB-0476)

Dilution Sampling System (CL-BIB-0477)

Preliminary Evaluation of Test Methods for Volatile Organics in Hazardous Waste (CL-BIB-0480)

Quality Assurance for Measurement of Variables When Using Proposed Method 5G for Wood Heater Certification Testing (CL-BIB-0481)

Air Emissions from Hazardous Waste Stabilization (CL-BIB-0484)

Products of Incomplete Combustion (PICs) in Rotary Kiln Simulator (CL-BIB-0485)

A Study of Products from the Photooxidation of Toluene Using MS/MS Analysis (CL-BIB-0488)

Monitoring Ambient Air for Dioxins (CL-BIB-0490)

Baltimore Total Exposure Assessment Methodology (TEAM) VOC Study (CL-BIB-0497)

New Studies of Population Exposure to VOCs and Major Sources of Exposure (CL-BIB-0498)

Effectiveness of Various Surface Coatings and Concrete Blocks in Reducing Low Pressure-Driven Influx of Radon Through Concrete Block Basement Walls (CL-BIB-0499)

Survey of Chlorofluorocarbon Destruction Techniques (CL-BIB-0503)

Investigation of the Blaze Icing KEJ1101 (Catalytic Woodstove) Operating Characteristics (CL-BIB-0504)

Emissions Data Base for Indoor Air Sources (CL-BIB-0507)

Design Change of NO2 Electrochemical Personal Exposure Monitor (PEM) (CL-BIB-0509)

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Chemical Ionization Mass Spectrometry for Trace-Level Determination of Ambient Polar Volatile Organic Compounds (CL-BIB-0513)

Field Evaluation of Sampling and Analysis for Organic Pollutants in Indoor Air (CL-BIB-0515)

Chemical Fractionation and Analysis of China Coal Combustion Emission Samples (CL-BIB-0516)

A High-Efficiency, High-Volume Compound Annular Denuder Sampler for Phase-Distributed Semi-Volatile Organic Chemicals (CL-BIB-0517)

Personal Sampling Device (PSD) Modification and Analysis (CL-BIB-0518)

Development of a Mass Spectral Identification Scheme for Electron Impact Spectra of Volatile Compounds (CL-BIB-0519)

VOCs Samplers for Superfund Site Applications (CL-BIB-0520)

Statistical Comparison of Results of Two Indoor Air Pilot Studies (CL-BIB-0521)

Design and Preliminary Evaluation of a Low Flow Rate Indoor Air Sampler (CL-BIB-0522)

Field Evaluation of Methodology for Semi-Volatile Compounds (CL-BIB-0523)

Multi-Sorbent Preconcentrator (CL-BIB-0524)

Real-Time Formaldehyde Monitor (CL-BIB-0525)

Development of a Polar VOC Detector Based on Photo-Induced Nucleation (CL-BIB-0526)

The Design and Installation of a Passive Radon Mitigation System (CL-BIB-0528)

Preparation of a Radon/New Construction Report (CL-BIB-0530)

Evaluation of Canister-Based Sampling in the TAMS Network (CL-BIB-0533)

Compilation and Evaluation of Air Toxics Monitoring Data in New England (CL-BIB-0534)

Madison Avenue Formaldehyde Study (CL-BIB-0535)

ENVIRONMENTAL PROTECTION AGENCY (EPA) (cont.)

Analysis of Non-Methane Organic Compounds (NMOC) Canisters for Selected Organic Compounds by GC/MSD (CL-BIB-0536)

Evaluation of Methylene Chloride Emissions from a Pharmaceutical Facility (CL-BIB-0537)

Evaluation of Ethylene Oxide Emissions from an Artificial Kidney Dialysis Machine Production Facility (CL-BIB-0538)

Evaluation of 1,3-Butadiene Emissions from a Styrene-Butadiene Latex Production Facility Before and After Controls (CL-BIB-0539)

Scoping Study for Deposition Modeling of Entire Great Lakes (CL-BIB-0540)

1985 Emissions Deposition Modeling of Air Toxics in Lake Michigan Region (CL-BIB-0541)

Great Lakes Transboundary Air Toxics Project (CL-BIB-0542)

Locating and Estimating Air Emissions from Fossil Fuel Combustion (CL-BIB-0543)

Locating and Estimating Air Emissions from Sources of Chromium (CL-BIB-0544)

Procedures for Estimating and Allocating Area Source Emissions of Air Toxics (CL-BIB-0545)

Test Method Development for Pathogen Monitoring of Medical Waste Incinerators (CL-BIB-0546)

Development of Continuous Emission Monitoring Guidelines for Municipal Waste Combustion (CL-BIB-0547)

Method Development for Condensible Particulate Matter Monitoring (CL-BIB-0548)

Evaluation of Factors that Influence Acceptable Indoor Air Quality (CL-BIB-0549)

New Home Construction Guide for Preventing Indoor Air Problems in New Homes (CL-BIB-0550)

PIPQUIC (Program Integration Project - Queries Using Interactive Commands) (CL-BIB-0551)

Compiling Air Toxics Emission Inventories, Second Edition (CL-BIB-0552)

ENVIRONMENTAL PROTECTION AGENCY (EPA) (cont.)

Staten Island-New Jersey Urban Air Toxics Assessment Program (CL-BIB-0553)

Evaluation of Carbon Tetrachloride Emissions from an Agricultural and Industrial Chemical Production Facility (CL-BIB-0554)

Evaluation of Potentially Toxic VOC Emissions from a Pesticide and Agricultural Chemical Production Facility (CL-BIB-0555)

Health Assessment Document for Ethylene Oxide (CL-BIB-0556)

Summary Review of Health Effects Associated with Ammonia: Health Issue Assessment (CL-BIB-0557)

Summary Review of Health Effects Associated with Methyl Methacrylate: Health Issue Assessment (CL-BIB-0558)

Summary Review of Health Effects Associated with Phthalic Anhydride: Health Issue Assessment (CL-BIB-0559)

Summary Review of Health Effects Associated with Maleic Anhydride: Health Issue Assessment (CL-BIB-0560)

Summary Review of Health Effects Associated with Xylene: Health Issue Assessment (CL-BIB-0561)

Summary Review of Health Effects Associated with Organic Phosphorous: Health Issue Assessment (CL-BIB-0562)

Summary Review of Health Effects Associated with Inorganic Phosphorous: Health Issue Assessment (CL-BIB-0563)

Summary Review of Health Effects Associated with Dimethylamine: Health Issue Assessment (CL-BIB-0564)

Summary Review of Health Effects Associated with Styrene: Health Issue Assessment (CL-BIB-0565)

Summary Review of Health Effects Associated with Hydrogen Cyanide: Health Issue Assessment (CL-BIB-0566)

Field Assessment of Emissions from a Waste Stabilization Process (CL-BIB-0568)

Assessment of the Controllability of Condensible Emissions (CL-BIB-0569)

Study to Evaluate Scrubbers as a Control for Arsine and Phosphine Emissions in the Semiconductor Industry (CL-BIB-0570)

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Study of Formaldehyde Emissions from the Manufacture of Veneer Wood Products (CL-BIB-0571)

Study to Determine Control Options for Creosote Wood Treatment Process (CL-BIB-0572)

Assessment of VOC Emissions from Fiberglass Marine Craft Manufacturing (CL-BIB-0573)

The Development of Emissions Estimation Procedures for Surface Impoundments (CL-BIB-0574)

Evaluation of Chromium Emissions from a Specialty Steel Plant (CL-BIB-0575)

Analysis of Emissions from Tire Burning (CL-BIB-0576)

Emission Factor Development for PM10 and Metals from Outdoor Abrasive Blasting (CL-BIB-0577)

Monitoring VOCs Using a Computer Network (CL-BIB-0578)

Development of Control Strategies for Chromium Emissions from Chrome Plating Facilities (CL-BIB-0579)

PM10 Monitoring Program to Evaluate Wood Smoke Impacts in Sitka (CL-BIB-0580)

Puget Sound Air Toxics Deposition Study (CL-BIB-0581)

Residential Wood Combustion Emissions Study (CL-BIB-0582)

An Assessment of Controls for Emissions from the Use of Soil Vapor Extraction Technology (CL-BIB-0583)

Evaluation of Modeling Procedures for Low Level Releases at Superfund Sites (CL-BIB-0584)

Benzene II (CL-BIB-0585)

National Bureau of Standards General Indoor Air Pollution Concentration Model (CL-BIB-0586)

Revisions to the Technical Assistance Document for the Sampling and Analysis of Toxic Organic Compounds in Ambient Air (CL-BIB-0587)

Evaluation of a Modified Method for Measuring Emissions of Chlorinated Solvents from Stationary Sources (CL-BIB-0588)

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Development of Formaldehyde Monitoring Techniques (CL-BIB-0590)

Assessment of Health Effects from Indoor Air Pollutants (CL-BIB-0591)

Evaluation of Methodologies for Determining Hepatic Effects of Inhaled Hazardous Pollutants (CL-BIB-0592)

Radon Mitigation Development and Demonstration Program (CL-BIB-0593)

Development of Risk Assessment Methodology for Municipal Sludge Incineration (CL-BIB-0594)

Technical Support Document for Chemical Mixtures Guidelines (CL-BIB-0595)

Evaluation of the Biological Significance of Toxicological Effects (CL-BIB-0596)

Reducing Uncertainties in Risk Assessment (CL-BIB-0597)

Radon Mitigation and Prevention Techniques for Schools and Workplaces (CL-BIB-0598)

New House Evaluation Program (New HEP) for Radon Reduction in New Construction (CL-BIB-0599)

Demonstration of Sealing and Passive Drain Tile and Subslab Ventilation for Radon Mitigation (CL-BIB-0600)

Development and Demonstration of Radon Mitigation Techniques for School Buildings (CL-BIB-0601)

National Survey of Residential Radon Exposures (CL-BIB-0602)

House Evaluation Program to Evaluate the Cost and Effectiveness of Radon Mitigation Methods (CL-BIB-0603)

Investigation of Methodologies for Characterizing the Radon Potential of Building Sites (CL-BIB-0604)

Superfund Cooperative Project - Application of Radon Mitigation Techniques to Superfund Sites (CL-BIB-0605)

Radon Measurements in Schools (CL-BIB-0606)

ENVIRONMENTAL PROTECTION AGENCY (EPA) (cont.)

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Development of an Expert System to Select Methods for Radon Mitigation (CL-BIB-0608)

Development of a National Data Base of Indoor Radon Measurements (CL-BIB-0609)

Report on Radon Measurements in Homes in Butte, Montana (CL-BIB-0610)

Study of the Release of Radon from Drinking Water into Indoor Air Environments (CL-BIB-0611)

Real-Time Personal Monitors for NO2 at Ppb Levels (CL-BIB-0612)

Monitoring of Dioxin at Dioxin Removal Sites (CL-BIB-0613)

Evaluation of Longpass Fourier Transformation Infra-Red (FTIR) Spectroscopy Remote Sensing Technology for VOCs (CL-BIB-0614)

Quality Assurance for Measurement of Variables When Using Method 28A for Wood Heater Certification Testing (CL-BIB-0615)

Quality Assurance for Measurement of Variables When Using Method 28 for Wood Heater Certification Testing (CL-BIB-0616)

Evaluation of Emissions and Control Options at Waferboard Plants (CL-BIB-0617)

Health Effects Testing of Isopropanol (CL-BIB-0619)

Health Effects Testing of 1,6-Hexamethylene Diisocyanate (CL-BIB-0620)

Health Effects Testing of Methyl Tert-Butyl Ether (MTBE) (CL-BIB-0621)

Health Effects Testing of Commercial Hexane and Diethylene Glycol Butyl Ether (DGBE) (CL-BIB-0622)

Denver Brown Cloud Study #2 (CL-BIB-0623)

Study to Determine the Impact of Rush Hour Traffic on Formaldehyde Levels (CL-BIB-0624)

1987-1988 NMOC/NOX SUMMER STUDY (AMBIENT MONITORING) (FL02 KPDT0001)

ENVIRONMENTAL PROTECTION AGENCY (EPA) (cont.)
EVALUATION OF CREMATORY EMISSIONS IN INDIANAPOLIS (IN03-01)

URBAN AIR TOXICS PROGRAM (MO01 MONITORING 1)

FIELD AND SLASH BURNING PESTICIDE IMPACT STUDY (OR01 PROJECT 001)

AMBIENT ORGANICS IN OLNEYVILLE, RI AIR (RI01002)

RUTLAND RESOURCE RECOVERY FACILITY SITE-SPECIFIC ENVIRONMENTAL ASSESSMENT (VT01 RUTLAND RRF01)

JORGENSEN STEEL BAGHOUSE CHROMIUM EMISSIONS (WA02 PSAPCA 10)

URBAN AIR TOXICS MITIGATION STUDY - PHASE II (WA02 PSAPCA 12)

RECEPTOR MODELING FEASIBILITY STUDY (WA02 PSAPCA 7)

URBAN AIR TOXICS MITIGATION STUDY - PHASE I (WA02 PSAPCA 8)

WYNDVALLEY - DEVELOPMENT OF A NONGUIDELINE AIR STAGNATION DIFFUSION MODEL (WA02 PSAPCA 9)

PM10 PROBLEM AREA IDENTIFICATION (WA02PSAPCA 11)

ENVIRONMENTAL TOBACCO SMOKE (CL-ETS)
Retrospective Cohort Investigation of Non-Asbestos Welders (CL-BIB-0240)

Case-Control Study of Lung Cancer in Teamsters Union (CL-BIB-0242)

Uranium Miners-Low Dose Investigation (CL-BIB-0244)

Case-Control Mortality Study of Nitroglycerin-Exposed Workers (CL-BIB-0247)

Environmental Tobacco Smoke Risk Evaluation (CL-BIB-0339)

Environmental Tobacco Smoke Manual (CL-BIB-0340)

New Studies of Population Exposure to VOCs and Major Sources of Exposure (CL-BIB-0498)

Assessment of Health Effects from Indoor Air Pollutants (CL-BIB-0591)

EPA (ENVIRONMENTAL PROTECTION AGENCY)
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EPICHLOROHYDRIN (106-89-8)
Decision on Regulation of Epichlorohydrin Under the Clean Air Act (CL-BIB-0378)

EPIDEMIOLOGY STUDY (ES)
Methodologies for Worksite Neurotoxicity Evaluations (CL-BIB-0169)

Prospective Epidemiologic Industrial Hygiene Study of Mild Steel Welders (CL-BIB-0202)

North Carolina Dusty Trades File (CL-BIB-0207)

Morbidity/Mortality Study of Industrial Sand Industry (CL-BIB-0208)

Mortality of Diesel Exposed Miners (CL-BIB-0213)

Comparative Research in Analytical Pathology (CL-BIB-0216)

Mortality Study of Chemical Plants in Kanawha Valley, West Virginia (CL-BIB-0221)

Ethylene Oxide Mortality Study - NCI (CL-BIB-0224)

Investigation of Workers Exposed to MBOCA (CL-BIB-0225)

Update of Completed Cohort Mortality Studies - NCI (CL-BIB-0227)

Mortality and Industrial Hygiene Characteristics of Workers Exposed to Lead Chromate Paints - NCI (CL-BIB-0228)

Beryllium Retrospective Cohort Investigation - NCI (CL-BIB-0229)

Medical, Biometric and Industrial Hygiene Study of Emerging Problems (CL-BIB-0230)

Epidemiologic and Industrial Hygiene Support of Toxic Substance Control Act - EPA (CL-BIB-0232)

Morbidity and Reproductive Study of U.S. Chemical Workers (CL-BIB-0236)

Industrywide Study of Workers Exposed to 4,4'-Methylenedianiline (MDA) (CL-BIB-0239)

Retrospective Cohort Investigation of Non-Asbestos Welders (CL-BIB-0240)

Case-Control Study of Lung Cancer in Teamsters Union (CL-BIB-0242)

Mortality Study of Workers Exposed to Toluene Diisocyanate (CL-BIB-0243)

EPIDEMIOLOGY STUDY (ES) (cont.)
Uranium Miners-Low Dose Investigation (CL-BIB-0244)

Case-Control Mortality Study of Nitroglycerin-Exposed Workers (CL-BIB-0247)

Support of EPA's Environmental Epidemiologic Program (CL-BIB-0409)

Mortality Study of Workers Exposed to Halowax (CL-BIB-0410)

Case-Control Survey to Test Hypotheses Generated by Computer Maps (CL-BIB-0414)

ETHANOL (64-17-5)
Chemical Analysis of Particulate Filters (Colorado) (CL-BIB-0445)

Study to Determine the Impact of Rush Hour Traffic on Formaldehyde Levels (CL-BIB-0624)

ETHANOL, 2-(2-BUTOXYETHOXY)- (112-34-5)
Health Effects Testing of Commercial Hexane and Diethylene Glycol Butyl Ether (DGBE) (CL-BIB-0622)

ETHER, TERT-BUTYL METHYL (1634-04-4)
Chemical Analysis of Particulate Filters (Colorado) (CL-BIB-0445)

Health Effects Testing of Methyl Tert-Butyl Ether (MTBE) (CL-BIB-0621)

Study to Determine the Impact of Rush Hour Traffic on Formaldehyde Levels (CL-BIB-0624)

ETHOXYETHANOL,2- (110-80-5)
Epidemiologic and Industrial Hygiene Support of Toxic Substance Control Act - EPA (CL-BIB-0232)

Glycol Ethers - NTP Management (CL-BIB-0376)

ETHYL BENZENE (100-41-4)
DEVELOPMENT OF A HUMAN EXHALED BREATH SAMPLING SYSTEM (NJ01 PROJECT 29955)

ETHYLENE DICHLORIDE (107-06-2)
Hazardous Organic NESHAP (CL-BIB-0261)

ATSDR Toxicological Profiles (CL-BIB-0618)

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ETHYLENE GLYCOL MONOBUTYL ETHER (111-76-2)
Epidemiologic and Industrial Hygiene Support of Toxic Substance Control Act - EPA (CL-BIB-0232)

ETHYLENE OXIDE (75-21-8)
Temporal Factors Influencing Carcinogenicity of Industrial Chemicals (CL-BIB-0190)

Mortality Study of Chemical Plants in Kanawha Valley, West Virginia (CL-BIB-0221)

Ethylene Oxide Mortality Study - NCI (CL-BIB-0224)

Epidemiologic and Industrial Hygiene Support of Toxic Substance Control Act - EPA (CL-BIB-0232)

Hazardous Organic NESHAP (CL-BIB-0261)

Support of EPA's Environmental Epidemiologic Program (CL-BIB-0409)

Evaluation of Ethylene Oxide Emissions from an Artificial Kidney Dialysis Machine Production Facility (CL-BIB-0538)

Health Assessment Document for Ethylene Oxide (CL-BIB-0556)

ETHYLENE OXIDE REGULATIONS (OH04ETO)

ETHYLHEXYLPHTHALATE,BIS,2- (117-81-7)
Epidemiologic and Industrial Hygiene Support of Toxic Substance Control Act - EPA (CL-BIB-0232)

EXPLOSIVES (2892)
Case-Control Mortality Study of Nitroglycerin-Exposed Workers (CL-BIB-0247)

EXPOSURE ASSESSMENT (EA)
EMISSIONS INVENTORY OF A PIPELINE MARINE TERMINAL (AK01 PROJECT 001)

Comparison of Indoor and Outdoor Toxic Air Pollutant Levels in Several Southern California Communities (CA01-A5-174-33)

Pilot Investigation of Indoor-Outdoor and Personal PM10 and Ongoing Associated Ionic Compounds and Mutagenic Activity (CA01-A6-129-33)

Activity Pattern Study of California Residents (CA01-A6-177-33/UCB)

IN-VEHICLE AIR TOXICS CHARACTERIZATION STUDY IN THE SOUTH COAST AIR BASIN (CA03-002)

EXPOSURE ASSESSMENT (EA) (cont.)

REGIONAL AIR TOXICS AND RISK ASSESSMENT MODEL ENVIRONMENT (CA03-003)

MULTI-PATHWAY HEALTH RISK ASSESSMENT INPUT PARAMETERS GUIDANCE DOCUMENT (CA03-005)

Estimating Exposure to Arsenic, Beryllium, Cadmium, Chromium, and Nickel From Coal and Oil Combustion (CL-BIB-0029)

Exposure/Risk Assessment on Air Emissions From Treatment, Storage and Disposal Facilities (CL-BIB-0030)

Integrated Air Cancer Project (CL-BIB-0115)

Contra Costa Exposure Study (CL-BIB-0157)

Access to National Occupational Hazard Survey Data Base Profile Development (CL-BIB-0252)

Development of Methods to Interpret Metabolism Data in Exposure Assessments (CL-BIB-0281)

Indoor Air Quality Research (CL-BIB-0290)

Monitoring Human Exposure to Hazardous Air Pollutants (HAPs) (CL-BIB-0291)

Process Evaluation of Ambient Air Monitoring Near a Sugar Beet Processing Plant in Idaho (CL-BIB-0296)

Study to Define and Determine Mitigation Methods for Air Toxics in Puget Sound (CL-BIB-0297)

Ambient Air Monitoring in Portland, Oregon (Urban Soup) (CL-BIB-0298)

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Health Assessment for Chromium, Update (CL-BIB-0279)

Health Assessment Document for Chlorine and Hydrogen Chloride, External Review (CL-BIB-0280)

Health Assessment for Trichloroethylene Cancer Update (CL-BIB-0282)

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Decision on Regulation of Air Emissions from Isocyanate Production Facilities (CL-BIB-0050)

Health Assessment Document for Chlorine and Hydrogen Chloride, External Review (CL-BIB-0280)

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Chlordane/Radon Mitigation Project (CL-BIB-0338)

Environmental Tobacco Smoke Risk Evaluation (CL-BIB-0339)

Environmental Tobacco Smoke Manual (CL-BIB-0340)

Manual on Indoor Air Quality Problems in Commerical Buildings (CL-BIB-0341)

Indoor Air Reference Data Base (CL-BIB-0379)

Introductory Indoor Air Quality (IAQ) Course for State and Local Public Health Officials (CL-BIB-0394)

TEAM Study: Indoor Air; Particle Study (CL-BIB-0419)

Neurobehavioral and Sensory Irritant Effects of Complex VOC Mixtures in Humans (CL-BIB-0421)

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The Influence of Woodburning on the Mutagenicity of Air Outdoor and Indoors (CL-BIB-0457)

The Particle Total Exposure Assessment Methodology (CL-BIB-0460)

GC/MS Analysis of Woodstove and Oil-fired Home Heating Unit Emissions and Ambient Samples from Impacted Areas (CL-BIB-0467)

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Baltimore Total Exposure Assessment Methodology (TEAM) VOC Study (CL-BIB-0497)

New Studies of Population Exposure to VOCs and Major Sources of Exposure (CL-BIB-0498)

Effectiveness of Various Surface Coatings and Concrete Blocks in Reducing Low Pressure-Driven Influx of Radon Through Concrete Block Basement Walls (CL-BIB-0499)

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National Bureau of Standards General Indoor Air Pollution Concentration Model (CL-BIB-0586)

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Assessment of Health Effects from Indoor Air Pollutants (CL-BIB-0591)

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New House Evaluation Program (New HEP) for Radon Reduction in New Construction (CL-BIB-0599)

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Development and Demonstration of Radon Mitigation Techniques for School Buildings (CL-BIB-0601)

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National Assessment of Radon Gas (SARA Section 118(k)) (CL-BIB-0607)

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Development of a National Data Base of Indoor Radon Measurements (CL-BIB-0609)

Report on Radon Measurements in Homes in Butte, Montana (CL-BIB-0610)

Study of the Release of Radon from Drinking Water into Indoor Air Environments (CL-BIB-0611)

Real-Time Personal Monitors for NO2 at Ppb Levels (CL-BIB-0612)

Guide to Reduction of Indoor Radon in Illinois Homes (IL01-871113)

THE TOTAL HUMAN ENVIRONMENTAL EXPOSURE STUDY (THEES) TO BENZO(A)PYRENE (NJ01 PROJECT 29529)

RADON CONCENTRATION STUDY - TOLEDO AREA (OH04 RADON STUDY '86)

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Indoor Air Reference Data Base (CL-BIB-0379)

Introductory Indoor Air Quality (IAQ) Course for State and Local Public Health Officials (CL-BIB-0394)

TEAM Study: Indoor Air: Particle Study (CL-BIB-0419)

Baltimore Integrated Management Project (IMP) (CL-BIB-0423)

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Evaluation of Contaminant Migration in Indoor Air in Homes (CL-BIB-0440)

Chamber Studies Characterizing the Organic Emissions from Kerosene Space Heaters: Phase II (CL-BIB-0449)

The Influence of Woodburning on the Mutagenicity of Air Outdoor and Indoors (CL-BIB-0457)

The Particle Total Exposure Assessment Methodology (CL-BIB-0460)

GC/MS Analysis of Woodstove and Oil-fired Home Heating Unit Emissions and Ambient Samples from Impacted Areas (CL-BIB-0467)

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Evaluation of Factors that Influence Acceptable Indoor Air Quality (CL-BIB-0549)

New Home Construction Guide for Preventing Indoor Air Problems in New Homes (CL-BIB-0550)

Staten Island-New Jersey Urban Air Toxics Assessment Program (CL-BIB-0553)

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Temporal Factors Influencing Carcinogenicity of Industrial Chemicals (CL-BIB-0190)

Mortality Study of Chemical Plants in Kanawha Valley, West Virginia (CL-BIB-0221)

Investigation of Workers Exposed to MBOCA (CL-BIB-0225)

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Study on the Formation of Aerosols and Particulates from the Incineration of Metals (CL-BIB-0475)

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Investigation, Documentation and Testing of a Proposed Wet Deposition and Related Algorithms to ISC Models (CL-BIB-0370)

Reproposal of Regulation for Boilers, Industrial Furnaces, and Incinerators That Use Hazardous Waste as Fuel (CL-BIB-0386)

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Process Evaluation of Ambient Air Monitoring Near a Sugar Beet Processing Plant in Idaho (CL-BIB-0296)

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Residential Wood Combustion and Automotive Emissions on the Boise, Idaho Air Shed (CL-BIB-0407)

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Particulate Matter-Organic Compounds Interactions on Municipal Incinerator Flyash (CL-BIB-0454)

Field Test Evaluation of a Methodology for Measuring Emissions of Selected Toxic Metals from Stationary Sources (CL-BIB-0455)

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Study to Determine the Fate of Benzene Precursors in Gasoline (CA01-A5-128-32)

Comparison of Indoor and Outdoor Toxic Air Pollutant Levels in Several Southern California Communities (CA01-A5-174-33)

A survey of Ambient Concentrations of Selected Polycyclic Aromatic Compounds (PAHs) at Various Locations in California (CA01-A5-185-32)

Fate of Hexavalent Chromium in the Atmosphere (CA01-A6-096-32)

Study of Ambient Concentrations of Chlorinated Dibenzodioxins and Dibenzofurans in Urban Areas in the South Coast Air Basin (CA01-A6-100-32)

Measurements of Toxic Exhaust Emissions from Gasoline Light-duty Vehicles (CA01-A6-109-32)

Pilot Investigation of Indoor-Outdoor and Personal PM10 and Ongoing Associated Ionic Compounds and Mutagenic Activity (CA01-A6-129-33)

Activity Pattern Study of California Residents (CA01-A6-177-33/UCB)

Southern California Air Quality Study (SCAQS) (CA01-A6-179-32)

Costs of Reducing Aromatics and Sulfur Levels in Motor Vehicle Fuels (CA01-A6-199-32)

Control of Benzene Emissions from Light Duty Vehicles (CA01-A6-204-32)

Emissions of Volatile and Potentially Toxic Organic Compounds from Waste Water Treatment Plants and Collection Systems (Phase 2) (CA01-CA-OR-3)

Genotoxicity of Diesel Exhaust Particles and Vapors Collected from Engines With and Without Particulate Trap Oxidizers (CA01-CA-OR-4)

Residential Indoor-Outdoor Radon Study (CA01-CA-OR-5)

Evaluation and Improvement of Methods for the Sampling and Analysis of Selected Toxic Air Contaminants (CA01-OR-1)

Methods Development for Assessment of Vapor Phase Mutagens and Carcinogens in Ambient Air (CA01-OR-2)

STATE OR LOCAL AGENCY (STATE/LOC) (cont.)

ANALYSIS OF AMBIENT AIR TOXICS DATA FROM POTENTIAL "HOT SPOTS" IN THE SOUTH COAST AIR BASIN. (CA03-001)

IN-VEHICLE AIR TOXICS CHARACTERIZATION STUDY IN THE SOUTH COAST AIR BASIN (CA03-002)

REGIONAL AIR TOXICS AND RISK ASSESSMENT MODEL ENVIRONMENT (CA03-003)

AMBIENT MEASUREMENT AND MODELING OF FORMALDEHYDE CONCENTRATIONS IN THE SOUTH COAST AIR BASIN (CA03-004)

MULTI-PATHWAY HEALTH RISK ASSESSMENT INPUT PARAMETERS GUIDANCE DOCUMENT (CA03-005)

1987-1988 NMOC/NOX SUMMER STUDY (AMBIENT MONITORING) (FL02 KPDT0001)

THE ARS PROJECT (AGGREGATE REDUCED SULFUR) (FL02ARS0002)

An Ongoing Survey of Genetic Toxicity of Air Particulates (IL01-001)

Bacterial Emissions from Incineration of Hospital Waste (IL01-871026)

Waste to Energy Recovery of Refuse as an Alternative to Landfill in Illinois (IL01-871037)

Interaction of Liberated Aluminum from a Coal-fired Electric Power Plant with a Hardwood Forest Ecosystem in Southwestern Illinois (IL01-871065)

Guide to Reduction of Indoor Radon in Illinois Homes (IL01-871113)

Municipal Incinerator Emission Limits (IL01-871116)

Review of State of the Art of Measuring Environmental Benefits (IL01-881033)

An Anlaysis of Industrial Reporting Requirements for Toxic Materials: A Mass Balance Accounting (IL01-881128)

Air Monitoring Survey Design for Air Toxic Pollutants in an Urban Environment (IL01-881145)

EVALUATION OF CREMATORY EMISSIONS IN INDIANAPOLIS (IN03-01)

AIR TOXICS REGULATION DEVELOPMENT (MD01 01)

STATE OR LOCAL AGENCY (STATE/LOC) (cont.)

URBAN AIR TOXICS PROGRAM (MO01 MONITORING 1)

PERMIT RULE FOR NON-CRITERIA POLLUTANTS (MO01 RULES 1)

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THE TOTAL HUMAN ENVIRONMENTAL EXPOSURE STUDY (THEES) TO BENZO(A)PYRENE (NJ01 PROJECT 29529)

DEVELOPMENT OF A HUMAN EXHALED BREATH SAMPLING SYSTEM (NJ01 PROJECT 29955)

RESULTS FROM THE ANALYSIS OF MSW INCINERATOR TESTING AT PEEKSKILL, N.Y. (NY01PROJECT 002)

RESULTS FROM THE ANALYSIS OF MSW INCINERATOR TESTING AT OSWEGO COUNTY, N.Y. (NY01PROJECT 003)

PHASE I RESOURCE RECOVERY-FACILITY EMISSION CHARACTERIZATION STUDY (NY01PROJECT 004)

SOURCES, OCCURRENCE AND EFFECTS OF DIOXINS AND DIBENZOFURANS IN OHIO'S ENVIRONMENT (OH01 DIOXIN D001)

RADON CONCENTRATION STUDY - TOLEDO AREA (OH04 RADON STUDY '86)

ETHYLENE OXIDE REGULATIONS (OH04ETO)

OKLAHOMA AIR POLLUTION CONTROL REGULATION 2.3 (REVISION) (OK01 PROJECT 2.3)

FIELD AND SLASH BURNING PESTICIDE IMPACT STUDY (OR01 PROJECT 001)

AMBIENT ORGANICS IN OLNEYVILLE, RI AIR (RI01002)

RUTLAND RESOURCE RECOVERY FACILITY SITE-SPECIFIC ENVIRONMENTAL ASSESSMENT (VT01 RUTLAND RRF01)

JORGENSEN STEEL BAGHOUSE CHROMIUM EMISSIONS (WA02 PSAPCA 10)

URBAN AIR TOXICS MITIGATION STUDY - PHASE II (WA02 PSAPCA 12)

RECEPTOR MODELING FEASIBILITY STUDY (WA02 PSAPCA 7)

URBAN AIR TOXICS MITIGATION STUDY - PHASE I (WA02 PSAPCA 8)

WYNDVALLEY - DEVELOPMENT OF A NONGUIDELINE AIR STAGNATION DIFFUSION MODEL (WA02 PSAPCA 9)

PM10 PROBLEM AREA IDENTIFICATION (WA02PSAPCA 11)

STATE OR LOCAL AGENCY (STATE/LOC) (cont.)
SURVEY OF WOOD USE FOR RESIDENTIAL WOODBURNING IN SHERIDAN AND LANDER, WYOMING (WY01 PROJECT 001)

ASSESSMENT OF EMISSIONS FROM ADJACENT INDUSTRIES IMPACTING THE BROOKHURST SUBDIVISION, NATRONA COUNTY, WYOMING (WY01 PROJECT 002)

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STEAM SUPPLY (496)
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RESULTS FROM THE ANALYSIS OF MSW INCINERATOR TESTING AT OSWEGO COUNTY, N.Y. (NY01PROJECT 003)

PHASE I RESOURCE RECOVERY-FACILITY EMISSION CHARACTERIZATION STUDY (NY01PROJECT 004)

STEAM SUPPLY (4961)
RESULTS FROM THE ANALYSIS OF MSW INCINERATOR TESTING AT PEEKSKILL, N.Y. (NY01PROJECT 002)

RESULTS FROM THE ANALYSIS OF MSW INCINERATOR TESTING AT OSWEGO COUNTY, N.Y. (NY01PROJECT 003)

PHASE I RESOURCE RECOVERY-FACILITY EMISSION CHARACTERIZATION STUDY (NY01PROJECT 004)

STEEL FOUNDRIES, NEC (3325)
Prospective Epidemiologic Industrial Hygiene Study of Mild Steel Welders (CL-BIB-0202)

Retrospective Cohort Investigation of Non-Asbestos Welders (CL-BIB-0240)

STEEL WIRE AND RELATED PRODUCTS (3315)
Mortality Study of Workers Exposed to Halowax (CL-BIB-0410)

STONE, CLAY, AND GLASS PRODUCTS (32)
Effectiveness of Various Surface Coatings and Concrete Blocks in Reducing Low Pressure-Driven Influx of Radon Through Concrete Block Basement Walls (CL-BIB-0499)

STYRENE (100-42-5)
Update of Completed Cohort Mortality Studies - NCI (CL-BIB-0227)

Evaluation of 1,3-Butadiene Emissions from a Styrene-Butadiene Latex Production Facility Before and After Controls (CL-BIB-0539)

STYRENE (100-42-5) (cont.)
Summary Review of Health Effects Associated with Styrene: Health Issue Assessment (CL-BIB-0565)

DEVELOPMENT OF A HUMAN EXHALED BREATH SAMPLING SYSTEM (NJ01 PROJECT 29955)

STYRENE, POLYMERS (9003-53-6)
Evaluation of 1,3-Butadiene Emissions from a Styrene-Butadiene Latex Production Facility Before and After Controls (CL-BIB-0539)

SUGAR AND CONFECTIONERY PRODUCTS (206)
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SULFUR (7704-34-9)
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SULFUR DIOXIDE (7446-09-5)
Field Testing of Municipal Waste Combustors (CL-BIB-0362)

THE ARS PROJECT (AGGREGATE REDUCED SULFUR) (FL02ARS0002)

SULFURIC ACID (7664-93-9)
ASSESSMENT OF EMISSIONS FROM ADJACENT INDUSTRIES IMPACTING THE BROOKHURST SUBDIVISION, NATRONA COUNTY, WYOMING (WY01 PROJECT 002)

SURGICAL APPLIANCES AND SUPPLIES (3842)
Evaluation of Ethylene Oxide Emissions from an Artificial Kidney Dialysis Machine Production Facility (CL-BIB-0538)

SYNTHETIC RUBBER (2822)
Evaluation of 1,3-Butadiene Emissions from a Styrene-Butadiene Latex Production Facility Before and After Controls (CL-BIB-0539)

TAXICABS (412)
Measurements of Toxic Exhaust Emissions from Gasoline Light-duty Vehicles (CA01-A6-109-32)

Control of Benzene Emissions from Light Duty Vehicles (CA01-A6-204-32)

TAXICABS (4121)
Measurements of Toxic Exhaust Emissions from Gasoline Light-duty Vehicles (CA01-A6-109-32)

Control of Benzene Emissions from Light Duty Vehicles (CA01-A6-204-32)

TEPP (107-49-3)
Risk Analysis of Existing Data on Triethyl Phosphate (CL-BIB-0075)

TETRACHLORODIBENZODIOXIN,2,3,7,8-,P- (1746-01-6)
Morbidity and Reproductive Study of U.S. Chemical Workers (CL-BIB-0236)

SOURCES, OCCURRENCE AND EFFECTS OF DIOXINS AND DIBENZOFURANS IN OHIO'S ENVIRONMENT (OH01 DIOXIN D001)

RUTLAND RESOURCE RECOVERY FACILITY SITE-SPECIFIC ENVIRONMENTAL ASSESSMENT (VT01 RUTLAND RRF01)

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RUTLAND RESOURCE RECOVERY FACILITY SITE-SPECIFIC ENVIRONMENTAL ASSESSMENT (VT01 RUTLAND RRF01)

TETRACHLOROETHANE (25322-20-7)
ATSDR Toxicological Profiles (CL-BIB-0618)

TETRACHLOROETHANE,1,1,2,2- (79-34-5)
URBAN AIR TOXICS PROGRAM (MO01 MONITORING 1)

TETRACHLOROETHYLENE (127-18-4)
Update of Completed Cohort Mortality Studies - NCI (CL-BIB-0227)

Hazardous Organic NESHAP (CL-BIB-0261)

Locating and Estimating Air Emissions from Sources of Perchloroethylene and Trichloroethylene (CL-BIB-0356)

Integrated Solvents Workgroup (CL-BIB-0437)

New Studies of Population Exposure to VOCs and Major Sources of Exposure (CL-BIB-0498)

Evaluation of a Modified Method for Measuring Emissions of Chlorinated Solvents from Stationary Sources (CL-BIB-0588)

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DEVELOPMENT OF A HUMAN EXHALED BREATH SAMPLING SYSTEM (NJ01 PROJECT 29955)

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TEXTILE MILL PRODUCTS (22) (cont.)
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THALLIUM, SOLUBLE COMPOUNDS, AS TL (7440-28-0)
Field Test Evaluation of a Methodology for Measuring Emissions of Selected Toxic Metals from Stationary Sources (CL-BIB-0455)

TIRES AND INNER TUBES (301)
Chemical Hazard Information Profile for Cyclohexylthiophthalimide (CL-BIB-0345)

TIRES AND INNER TUBES (3011)
Chemical Hazard Information Profile for Cyclohexylthiophthalimide (CL-BIB-0345)

TOLEDO ENVIRONMENTAL SERVICES DIVISION (OH04)
RADON CONCENTRATION STUDY - TOLEDO AREA (OH04 RADON STUDY '86)

ETHYLENE OXIDE REGULATIONS (OH04ETO)

TOLUALDEHYDE,O- (529-20-4)
Development of a Polar VOC Detector Based on Photo-Induced Nucleation (CL-BIB-0526)

TOLUENE (108-88-3)
Field Evaluation of a Heavy Gas Detection and Dispersion Approach Using a Whole Air Technique (CL-BIB-0347)

Refinement of a Detection and Analysis Approach to Volatile Organic Compound Release Characterization Using a Whole Air Technique (CL-BIB-0348)

Preliminary Evaluation of Test Methods for Volatile Organics in Hazardous Waste (CL-BIB-0480)

A Study of Products from the Photooxidation of Toluene Using MS/MS Analysis (CL-BIB-0488)

ATSDR Toxicological Profiles (CL-BIB-0618)

URBAN AIR TOXICS PROGRAM (MO01 MONITORING 1)

DEVELOPMENT OF A HUMAN EXHALED BREATH SAMPLING SYSTEM (NJ01 PROJECT 29955)

ASSESSMENT OF EMISSIONS FROM ADJACENT INDUSTRIES IMPACTING THE BROOKHURST SUBDIVISION, NATRONA COUNTY, WYOMING (WY01 PROJECT 002)

TOLUENE DIISOCYANATE (26471-62-5)
Mortality Study of Workers Exposed to Toluene Diisocyanate (CL-BIB-0243)

TOLUENE-2,4-DIISOCYANATE (584-84-9)
Decision on Regulation of Air Emissions from Isocyanate Production Facilities (CL-BIB-0050)

Health Assessment Document for Toluene Diisocyanate (CL-BIB-0374)

TOTAL CARBON (CL-CARBON)
Study to Define and Determine Mitigation Methods for Air Toxics in Puget Sound (CL-BIB-0297)

TOXICITY TESTING (TT)
Pilot Investigation of Indoor-Outdoor and Personal PM10 and Ongoing Associated Ionic Compounds and Mutagenic Activity (CA01-A6-129-33)

Genotoxicity of Diesel Exhaust Particles and Vapors Collected from Engines With and Without Particulate Trap Oxidizers (CA01-CA-OR-4)

Methods Development for Assessment of Vapor Phase Mutagens and Carcinogens in Ambient Air (CA01-OR-2)

Determine Pulmonary Dose-Response Relationships (CL-BIB-0108)

Determine Neurotoxic Dose-Response Relationships (CL-BIB-0109)

Characterize Genotoxic Dose-Response Relationships (CL-BIB-0110)

Identify and Evaluate Toxic Components of Air Pollution (CL-BIB-0111)

Determine the Significance of Neurotoxic Response Indicators (CL-BIB-0112)

Develop Methods to Identify Reproductive Toxicity of Air Pollutants (CL-BIB-0114)

Particulate and Tissue Analysis Service and Research (CL-BIB-0161)

Evaluation of Mesothelioma Production by Asbestos Substitutes (CL-BIB-0162)

Methodologies for Worksite Neurotoxicity Evaluations (CL-BIB-0169)

Vanadium Pentoxide - NTP Chemical Management (CL-BIB-0181)

Dimethylformamide - NTP Chemical Management (CL-BIB-0186)

TOXICITY TESTING (TT) (cont.)
Temporal Factors Influencing Carcinogenicity of Industrial Chemicals (CL-BIB-0190)

Comparative Research in Analytical Pathology (CL-BIB-0216)

Development of Methods to Interpret Metabolism Data in Exposure Assessments (CL-BIB-0281)

Cellular and Molecular Cardiac Toxicology (CL-BIB-0303)

Arylamine Adducts in Blood as Indicators of Exposure (CL-BIB-0304)

Pulmonary Response to Inhaled Fibrogenic Minerals (CL-BIB-0308)

Chemical Hazard Information Profile for Cyclohexylthiophthalimide (CL-BIB-0345)

Develop Dosimetry Models for VOC Hazard Identification (CL-BIB-0350)

Glycol Ethers - NTP Management (CL-BIB-0376)

Field Evaluation of Sampling and Analysis for Organic Pollutants in Indoor Air (CL-BIB-0515)

Chemical Fractionation and Analysis of China Coal Combustion Emission Samples (CL-BIB-0516)

Puget Sound Air Toxics Deposition Study (CL-BIB-0581)

Evaluation of Methodologies for Determining Hepatic Effects of Inhaled Hazardous Pollutants (CL-BIB-0592)

Evaluation of the Biological Significance of Toxicological Effects (CL-BIB-0596)

An Ongoing Survey of Genetic Toxicity of Air Particulates (IL01-001)

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TRANSPORTATION EQUIPMENT (37)
Assessment of VOC Emissions from Fiberglass Marine Craft Manufacturing (CL-BIB-0573)

TRICHLOROETHANE,1,1,1- (71-55-6)
Field Evaluation of a Heavy Gas Detection and Dispersion Approach Using a Whole Air Technique (CL-BIB-0347)

TRICHLOROETHANE,1,1,1- (71-55-6) (cont.)
Refinement of a Detection and Analysis Approach to Volatile Organic Compound Release Characterization Using a Whole Air Technique (CL-BIB-0348)

URBAN AIR TOXICS PROGRAM (MO01 MONITORING 1)

DEVELOPMENT OF A HUMAN EXHALED BREATH SAMPLING SYSTEM (NJ01 PROJECT 29955)

AMBIENT ORGANICS IN OLNEYVILLE, RI AIR (RI01002)

TRICHLOROETHANE,1,1,2- (79-00-5)
ATSDR Toxicological Profiles (CL-BIB-0618)

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TRICHLOROETHYLENE (79-01-6)
Hazardous Organic NESHAP (CL-BIB-0261)

Health Assessment for Trichloroethylene Cancer Update (CL-BIB-0282)

Locating and Estimating Air Emissions from Sources of Perchloroethylene and Trichloroethylene (CL-BIB-0356)

Integrated Solvents Workgroup (CL-BIB-0437)

Analysis of Non-Methane Organic Compounds (NMOC) Canisters for Selected Organic Compounds by GC/MSD (CL-BIB-0536)

Evaluation of a Modified Method for Measuring Emissions of Chlorinated Solvents from Stationary Sources (CL-BIB-0588)

URBAN AIR TOXICS PROGRAM (MO01 MONITORING 1)

DEVELOPMENT OF A HUMAN EXHALED BREATH SAMPLING SYSTEM (NJ01 PROJECT 29955)

AMBIENT ORGANICS IN OLNEYVILLE, RI AIR (RI01002)

TRICHLOROPHENOXYACETICACID,2,4,5- (93-76-5)
Monitoring of Dioxin at Dioxin Removal Sites (CL-BIB-0613)

TRIETHYL PHOSPHATE (78-40-0)
Risk Analysis of Existing Data on Triethyl Phosphate (CL-BIB-0075)

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Case-Control Study of Lung Cancer in Teamsters Union (CL-BIB-0242)

TRUCKING, EXCEPT LOCAL (4213)
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VANADIUM (7440-62-2)
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VANADIUM PENTOXIDE (1314-62-1)
Vanadium Pentoxide - NTP Chemical Management (CL-BIB-0181)

VARIOUS (CL-VARIOUS)
Southern California Air Quality Study (SCAQS) (CA01-A6-179-32)

Hazardous Air Pollutants in the Urban Environment (CL-BIB-0104)

Determine Pulmonary Dose-Response Relationships (CL-BIB-0108)

Determine Neurotoxic Dose-Response Relationships (CL-BIB-0109)

Characterize Genotoxic Dose-Response Relationships (CL-BIB-0110)

Identify and Evaluate Toxic Components of Air Pollution (CL-BIB-0111)

Determine the Significance of Neurotoxic Response Indicators (CL-BIB-0112)

Develop Methods to Identify Reproductive Toxicity of Air Pollutants (CL-BIB-0114)

Particulate and Tissue Analysis Service and Research (CL-BIB-0161)

Methodologies for Worksite Neurotoxicity Evaluations (CL-BIB-0169)

Medical, Biometric and Industrial Hygiene Study of Emerging Problems (CL-BIB-0230)

Health Hazard Evaluations and Technical Assistance (CL-BIB-0231)

Uranium Miners-Low Dose Investigation (CL-BIB-0244)

Access to National Occupational Hazard Survey Data Base Profile Development (CL-BIB-0252)

Monitoring Human Exposure to Hazardous Air Pollutants (HAPs) (CL-BIB-0291)

Cellular and Molecular Cardiac Toxicology (CL-BIB-0303)

VARIOUS (CL-VARIOUS) (cont.)

Urban Air Toxics Monitoring Program (CL-BIB-0353)

Reportable Quantities Regulations (CL-BIB-0354)

Interpreted Role of Federally Permitted Releases (CL-BIB-0355)

Urban Air Toxics Program (CL-BIB-0359)

Integrated Risk Information System (IRIS) (CL-BIB-0363)

OOMS/DEGADIS Modeling Improvements (CL-BIB-0369)

Investigation, Documentation and Testing of a Proposed Wet Deposition and Related Algorithms to ISC Models (CL-BIB-0370)

Reproposal of Regulation for Boilers, Industrial Furnaces, and Incinerators That Use Hazardous Waste as Fuel (CL-BIB-0386)

Studies on Toxicity Applicable to Risk Assessment (STARA) (CL-BIB-0390)

Source Category Parameters (CL-BIB-0391)

The Toxic Interaction Database, MIXTOX (CL-BIB-0392)

SARA Title IV Report to Congress (CL-BIB-0393)

Archive and Evaluate Selected Air Toxics Dispersion Models (CL-BIB-0399)

Toxic Chemical Testing for Assessment Exposure Monitoring Systems Development (CL-BIB-0401)

Case-Control Survey to Test Hypotheses Generated by Computer Maps (CL-BIB-0414)

TEAM Study: Indoor Air; Particle Study (CL-BIB-0419)

Baltimore Integrated Management Project (IMP) (CL-BIB-0423)

Study of Exposure to Anti-Microbials (CL-BIB-0432)

General Quantitative Risk Assessment Guidelines for Noncancer Health Effects (CL-BIB-0448)

Northeast Cooperative Woodstove Study - Phases II and III (CL-BIB-0452)

Indoor Dispersion/Ventilation Model (CL-BIB-0469)

VARIOUS (CL-VARIOUS) (cont.)

Dilution Sampling System (CL-BIB-0477)

Products of Incomplete Combustion (PICs) in Rotary Kiln Simulator (CL-BIB-0485)

Compilation and Evaluation of Air Toxics Monitoring Data in New England (CL-BIB-0534)

Scoping Study for Deposition Modeling of Entire Great Lakes (CL-BIB-0540)

1985 Emissions Deposition Modeling of Air Toxics in Lake Michigan Region (CL-BIB-0541)

Great Lakes Transboundary Air Toxics Project (CL-BIB-0542)

Locating and Estimating Air Emissions from Fossil Fuel Combustion (CL-BIB-0543)

Procedures for Estimating and Allocating Area Source Emissions of Air Toxics (CL-BIB-0545)

PIPQUIC (Program Integration Project - Queries Using Interactive Commands) (CL-BIB-0551)

Compiling Air Toxics Emission Inventories, Second Edition (CL-BIB-0552)

Puget Sound Air Toxics Deposition Study (CL-BIB-0581)

Evaluation of Modeling Procedures for Low Level Releases at Superfund Sites (CL-BIB-0584)

Evaluation of Methodologies for Determining Hepatic Effects of Inhaled Hazardous Pollutants (CL-BIB-0592)

Technical Support Document for Chemical Mixtures Guidelines (CL-BIB-0595)

Evaluation of the Biological Significance of Toxicological Effects (CL-BIB-0596)

Reducing Uncertainties in Risk Assessment (CL-BIB-0597)

VERMONT DEPT. OF ENV. CONS., AIR POLLUTION CNT. DIV. (VT01)

RUTLAND RESOURCE RECOVERY FACILITY SITE-SPECIFIC ENVIRONMENTAL ASSESSMENT (VT01 RUTLAND RRF01)

VINYL CHLORIDE (75-01-4)

Update of Completed Cohort Mortality Studies - NCI (CL-BIB-0227)

VINYL CHLORIDE (75-01-4) (cont.)

URBAN AIR TOXICS PROGRAM (M001 MONITORING 1)

VOLATILE ORGANIC COMPOUNDS (CL-VOC)

Study to Determine the Fate of Benzene Precursors in Gasoline (CA01-A5-128-32)

Comparison of Indoor and Outdoor Toxic Air Pollutant Levels in Several Southern California Communities (CA01-A5-174-33)

Control of Benzene Emissions from Light Duty Vehicles (CA01-A6-204-32)

Emissions of Volatile and Potentially Toxic Organic Compounds from Waste Water Treatment Plants and Collection Systems (Phase 2) (CA01-CA-OR-3)

Field Assessment of Waste Pretreatment at Refinery Land Treatment Facilities (CL-BIB-0141)

Engineering Study: Standards Development for Hazardous Waste Treatment, Storage, and Disposal Facilities (CL-BIB-0257)

Toxics Air Monitoring Systems (TAMS) (CL-BIB-0286)

Methods Development for Sampling Hazardous Waste Emissions from Stacks (CL-BIB-0289)

Monitoring Human Exposure to Hazardous Air Pollutants (HAPs) (CL-BIB-0291)

Process Evaluation of Ambient Air Monitoring Near a Sugar Beet Processing Plant in Idaho (CL-BIB-0296)

Develop Dosimetry Models for VOC Hazard Identification (CL-BIB-0350)

Reproposal of Regulation for Boilers, Industrial Furnaces, and Incinerators That Use Hazardous Waste as Fuel (CL-BIB-0386)

Toxic Chemical Testing for Assessment Exposure Monitoring Systems Development (CL-BIB-0401)

Development of New Methods for SW846 (CL-BIB-0405)

Residential Wood Combustion and Automotive Emissions on the Boise, Idaho Air Shed (CL-BIB-0407)

Neurobehavioral and Sensory Irritant Effects of Complex VOC Mixtures in Humans (CL-BIB-0421)

VOLATILE ORGANIC COMPOUNDS (CL-VOC) (cont.)

Chamber Studies Characterizing the Organic Emissions from Kerosene Space Heaters: Phase II (CL-BIB-0449)

Low Cost Personal Monitoring Devices for Indoor Air (CL-BIB-0471)

Compendium of Indoor Air Quality Measurement Methods (CL-BIB-0472)

Temporal Profile Analysis (CL-BIB-0474)

Air Emissions from Hazardous Waste Stabilization (CL-BIB-0484)

Products of Incomplete Combustion (PICs) in Rotary Kiln Simulator (CL-BIB-0485)

Baltimore Total Exposure Assessment Methodology (TEAM) VOC Study (CL-BIB-0497)

New Studies of Population Exposure to VOCs and Major Sources of Exposure (CL-BIB-0498)

Chemical Ionization Mass Spectrometry for Trace-Level Determination of Ambient Polar Volatile Organic Compounds (CL-BIB-0513)

Personal Sampling Device (PSD) Modification and Analysis (CL-BIB-0518)

Development of a Mass Spectral Identification Scheme for Electron Impact Spectra of Volatile Compounds (CL-BIB-0519)

VOCs Samplers for Superfund Site Applications (CL-BIB-0520)

Field Evaluation of Methodology for Semi-Volatile Compounds (CL-BIB-0523)

Multi-Sorbent Preconcentrator (CL-BIB-0524)

Development of a Polar VOC Detector Based on Photo-Induced Nucleation (CL-BIB-0526)

Evaluation of Canister-Based Sampling in the TAMS Network (CL-BIB-0533)

Madison Avenue Formaldehyde Study (CL-BIB-0535)

Staten Island-New Jersey Urban Air Toxics Assessment Program (CL-BIB-0553)

Evaluation of Potentially Toxic VOC Emissions from a Pesticide and Agricultural Chemical Production Facility (CL-BIB-0555)

VOLATILE ORGANIC COMPOUNDS (CL-VOC) (cont.)
Field Assessment of Emissions from a Waste Stabilization Process (CL-BIB-0568)

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WELDING REPAIR (7692)
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WELDING REPAIR (7692) (cont.)
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Study of the Effects of Appliance Type and Operating Variables on Residential Wood Combustion Emissions (CL-BIB-0330)

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Investigation of the Blaze Icing KEJ1101 (Catalytic Woodstove) Operating Characteristics (CL-BIB-0504)

PM10 Monitoring Program to Evaluate Wood Smoke Impacts in Sitka (CL-BIB-0580)

Residential Wood Combustion Emissions Study (CL-BIB-0582)

Quality Assurance for Measurement of Variables When Using Method 28A for Wood Heater Certification Testing (CL-BIB-0615)

Quality Assurance for Measurement of Variables When Using Method 28 for Wood Heater Certification Testing (CL-BIB-0616)

SURVEY OF WOOD USE FOR RESIDENTIAL WOODBURNING IN SHERIDAN AND LANDER, WYOMING (WY01 PROJECT 001)

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Asbestos NESHAP Demolition and Renovation Inspection Safety Procedures Workshop Manual (CL-BIB-0342)
Emission Factor Development for PM10 and Metals from Outdoor Abrasive Blasting (CL-BIB-0577)

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100-42-5 (STYRENE)
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10028-15-6 (OZONE)
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10043-92-2 (RADON)
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10043-92-2 (RADON) (cont)

Radon Mitigation and Prevention Techniques for Schools and Workplaces (CL-BIB-0598)

New House Evaluation Program (New HEP) for Radon Reduction in New Construction (CL-BIB-0599)

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Development and Demonstration of Radon Mitigation Techniques for School Buildings (CL-BIB-0601)

National Survey of Residential Radon Exposures (CL-BIB-0602)

House Evaluation Program to Evaluate the Cost and Effectiveness of Radon Mitigation Methods (CL-BIB-0603)

Investigation of Methodologies for Characterizing the Radon Potential of Building Sites (CL-BIB-0604)

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Radon Measurements in Schools (CL-BIB-0606)

National Assessment of Radon Gas (SARA Section 118(k)) (CL-BIB-0607)

Development of an Expert System to Select Methods for Radon Mitigation (CL-BIB-0608)

Development of a National Data Base of Indoor Radon Measurements (CL-BIB-0609)

Report on Radon Measurements in Homes in Butte, Montana (CL-BIB-0610)

Study of the Release of Radon from Drinking Water into Indoor Air Environments (CL-BIB-0611)

Guide to Reduction of Indoor Radon in Illinois Homes (IL01-871113)

RADON CONCENTRATION STUDY - TOLEDO AREA (OH04 RADON STUDY '86)

101-14-4 (CURENE)

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Epidemiologic and Industrial Hygiene Support of Toxic Substance Control Act - EPA (CL-BIB-0232)

101-14-4 (CURENE) (cont.)

Arylamine Adducts in Blood as Indicators of Exposure (CL-BIB-0304)

101-77-9 (METHYLENEDIANILINE,4,4'-)

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10102-44-0 (NITROGEN DIOXIDE)

Low Cost Personal Monitoring Devices for Indoor Air (CL-BIB-0471)

Design Change of NO2 Electrochemical Personal Exposure Monitor (PEM) (CL-BIB-0509)

Field Evaluation of Methodology for Semi-Volatile Compounds (CL-BIB-0523)

Real-Time Personal Monitors for NO2 at Ppb Levels (CL-BIB-0612)

1987-1988 NMOC/NOX SUMMER STUDY (AMBIENT MONITORING) (FL02 KPDT0001)

103-45-7 (PHENYLETHANOL ACETATE)

Information Gathering and Risk Analysis of Existing Data on Phenylethanol and Phenylethanol Acetate (CL-BIB-0077)

106-46-7 (DICHLOROBENZENE,1,4-)

Decision on Regulation of Air Emissions from Isocyanate Production Facilities (CL-BIB-0050)

Paradichlorobenzene (Used in Moth Repellents and Air Fresheners) (CL-BIB-0436)

New Studies of Population Exposure to VOCs and Major Sources of Exposure (CL-BIB-0498)

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106-89-8 (EPICHLOROHYDRIN)

Decision on Regulation of Epichlorohydrin Under the Clean Air Act (CL-BIB-0378)

106-99-0 (BUTADIENE,1,3-)

Mortality Study of Chemical Plants in Kanawha Valley, West Virginia (CL-BIB-0221)

Update of Completed Cohort Mortality Studies - NCI (CL-BIB-0227)

Hazardous Organic NESHAP (CL-BIB-0261)

Locating and Estimating Air Emissions from Sources of 1,3-Butadiene (CL-BIB-0358)

106-99-0 (BUTADIENE,1,3-) (cont.)
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107-02-8 (ACROLEIN)
Decision on Regulation of Acrolein Under the Clean Air Act (CL-BIB-0035)

Health Assessment Document for Acrolein (CL-BIB-0059)

Acrolein Emissions Update (CL-BIB-0254)

Process Evaluation of Ambient Air Monitoring Near a Sugar Beet Processing Plant in Idaho (CL-BIB-0296)

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107-06-2 (ETHYLENE DICHLORIDE)
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107-49-3 (TEPP)
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108-31-6 (MALEIC ANHYDRIDE)
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Summary Review of Health Effects Associated with Maleic Anhydride: Health Issue Assessment (CL-BIB-0560)

108-88-3 (TOLUENE)
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Refinement of a Detection and Analysis Approach to Volatile Organic Compound Release Characterization Using a Whole Air Technique (CL-BIB-0348)

Preliminary Evaluation of Test Methods for Volatile Organics in Hazardous Waste (CL-BIB-0480)

A Study of Products from the Photooxidation of Toluene Using MS/MS Analysis (CL-BIB-0488)

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108-88-3 (TOLUENE) (cont.)
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DEVELOPMENT OF A HUMAN EXHALED BREATH SAMPLING SYSTEM (NJ01 PROJECT 29955)

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108-90-7 (MONOCHLOROBENZENE)
Preliminary Evaluation of Test Methods for Volatile Organics in Hazardous Waste (CL-BIB-0480)

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108-95-2 (PHENOL)
Preliminary Evaluation of Test Methods for Volatile Organics in Hazardous Waste (CL-BIB-0480)

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109 (MISCELLANEOUS METAL ORES)
Uranium Miners-Low Dose Investigation (CL-BIB-0244)

109-86-4 (METHOXYETHANOL,2-)
Glycol Ethers - NTP Management (CL-BIB-0376)

1094 (URANIUM-RADIUM-VANADIUM ORES)
Uranium Miners-Low Dose Investigation (CL-BIB-0244)

11 (ANTHRACITE MINING)
Comparative Research in Analytical Pathology (CL-BIB-0216)

110-54-3 (HEXANE,N-)
Health Effects Testing of Commercial Hexane and Diethylene Glycol Butyl Ether (DGBE) (CL-BIB-0622)

110-80-5 (ETHOXYETHANOL,2-)
Epidemiologic and Industrial Hygiene Support of Toxic Substance Control Act - EPA (CL-BIB-0232)

Glycol Ethers - NTP Management (CL-BIB-0376)

110-86-1 (PYRIDINE)
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111 (ANTHRACITE MINING)
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111-44-4 (BIS(2-CHLOROETHYL) ETHER)
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111-76-2 (ETHYLENE GLYCOL MONOBUTYL ETHER)
Epidemiologic and Industrial Hygiene Support of Toxic Substance Control Act - EPA (CL-BIB-0232)

11104-93-1 (NITROGEN OXIDES)
A Study of Products from the Photooxidation of Toluene Using MS/MS Analysis (CL-BIB-0488)

Development of Continuous Emission Monitoring Guidelines for Municipal Waste Combustion (CL-BIB-0547)

112-34-5 (ETHANOL, 2-(2-BUTOXYETHOXY)-)
Health Effects Testing of Commercial Hexane and Diethylene Glycol Butyl Ether (DGBE) (CL-BIB-0622)

117-81-7 (ETHYLHEXYLPHTHALATE,BIS,2-)
Epidemiologic and Industrial Hygiene Support of Toxic Substance Control Act - EPA (CL-BIB-0232)

117-82-8 (PHTHALIC ACID, DI(METHOXYETHYL) ESTER)
Data Gathering and Risk Analysis of Existing Data on Dimethoxyethyl Phthalate and Other Phthalate Esters (CL-BIB-0076)

12 (BITUMINOUS COAL AND LIGNITE MINING)
Comparative Research in Analytical Pathology (CL-BIB-0216)

12001-29-5 (CHRYSOTILE)
Evaluation of Mesothelioma Production by Asbestos Substitutes (CL-BIB-0162)

121 (BITUMINOUS COAL AND LIGNITE MINING)
Comparative Research in Analytical Pathology (CL-BIB-0216)

121-14-2 (DINITROTOLUENE,2,4-)
Decision on Regulation of Air Emissions from Isocyanate Production Facilities (CL-BIB-0050)

ATSDR Toxicological Profiles (CL-BIB-0618)

124-40-3 (DIMETHYLAMINE)
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Summary Review of Health Effects Associated with Dimethylamine: Health Issue Assessment (CL-BIB-0564)

124-48-1 (CHLORODIBROMOMETHANE)
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127-18-4 (TETRACHLOROETHYLENE)
Update of Completed Cohort Mortality Studies - NCI (CL-BIB-0227)

Hazardous Organic NESHAP (CL-BIB-0261)

Locating and Estimating Air Emissions from Sources of Perchloroethylene and Trichloroethylene (CL-BIB-0356)

Integrated Solvents Workgroup (CL-BIB-0437)

New Studies of Population Exposure to VOCs and Major Sources of Exposure (CL-BIB-0498)

Evaluation of a Modified Method for Measuring Emissions of Chlorinated Solvents from Stationary Sources (CL-BIB-0588)

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DEVELOPMENT OF A HUMAN EXHALED BREATH SAMPLING SYSTEM (NJ01 PROJECT 29955)

AMBIENT ORGANICS IN OLNEYVILLE, RI AIR (RI01002)

13 (OIL AND GAS EXTRACTION)
Mortality of Diesel Exposed Miners (CL-BIB-0213)

ASSESSMENT OF EMISSIONS FROM ADJACENT INDUSTRIES IMPACTING THE BROOKHURST SUBDIVISION, NATRONA COUNTY, WYOMING (WY01 PROJECT 002)

1309-37-1 (IRON OXIDE FUME)
Prospective Epidemiologic Industrial Hygiene Study of Mild Steel Welders (CL-BIB-0202)

1314-6[illegible]1 (VANADIUM PENTOXIDE)
Vanadium Pentoxide - NTP Chemical Management (CL-BIB-0181)

132-64-9 (DIBENZOFURAN)
Health Assessment Document for Polychlorinated Dibenzofurans (CL-BIB-0064)

1330-20-7 (XYLENE)
Decision on Regulation of Xylene Under the Clean Air Act (CL-BIB-0052)

Summary Review of Health Effects Associated with Xylene: Health Issue Assessment (CL-BIB-0561)

URBAN AIR TOXICS PROGRAM (MO01 MONITORING 1)

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1332-21-4 (ASBESTOS)

Asbestos NESHAP Revision (CL-BIB-0018)

Evaluation of Mesothelioma Production by Asbestos Substitutes (CL-BIB-0162)

North Carolina Dusty Trades File (CL-BIB-0207)

Asbestos NESHAP Demolition and Renovation Inspection Safety Procedures Workshop Manual (CL-BIB-0342)

Decision on Regulation of Contaminant Asbestos Under the Clean Air Act (CL-BIB-0381)

Revisions to the NESHAP Regulation (Section 112 of the Clean Air Act) for Asbestos (CL-BIB-0435)

WESTERN VERMICULITE PERMIT REVIEW AND EIS (MT01 WESTVERM)

1332-37-2 (IRON OXIDE)

Prospective Epidemiologic Industrial Hygiene Study of Mild Steel Welders (CL-BIB-0202)

Retrospective Cohort Investigation of Non-Asbestos Welders (CL-BIB-0240)

1336-36-3 (POLYCHLORINATED BIPHENYLS)

Update of Completed Cohort Mortality Studies - NCI (CL-BIB-0227)

138 (OIL AND GAS FIELD SERVICES)

ASSESSMENT OF EMISSIONS FROM ADJACENT INDUSTRIES IMPACTING THE BROOKHURST SUBDIVISION, NATRONA COUNTY, WYOMING (WY01 PROJECT 002)

1389 (OIL AND GAS FIELD SERVICES, NEC)

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14 (NONMETALLIC MINERALS, EXCEPT FUELS)

Morbidity/Mortality Study of Industrial Sand Industry (CL-BIB-0208)

WESTERN VERMICULITE PERMIT REVIEW AND EIS (MT01 WESTVERM)

144 (SAND AND GRAVEL)

Morbidity/Mortality Study of Industrial Sand Industry (CL-BIB-0208)

1446 (INDUSTRIAL SAND)

Morbidity/Mortality Study of Industrial Sand Industry (CL-BIB-0208)

149 (MISCELLANEOUS NONMETALLIC MINERALS)

WESTERN VERMICULITE PERMIT REVIEW AND EIS (MT01 WESTVERM)

1499 (NONMETALLIC MINERALS, NEC)

WESTERN VERMICULITE PERMIT REVIEW AND EIS (MT01 WESTVERM)

15 (GENERAL BUILDING CONTRACTORS)

Asbestos NESHAP Revision (CL-BIB-0018)

Pulmonary Response to Inhaled Fibrogenic Minerals (CL-BIB-0308)

Manual on Indoor Air Quality Problems in Commerical Buildings (CL-BIB-0341)

Asbestos NESHAP Demolition and Renovation Inspection Safety Procedures Workshop Manual (CL-BIB-0342)

Effectiveness of Various Surface Coatings and Concrete Blocks in Reducing Low Pressure-Driven Influx of Radon Through Concrete Block Basement Walls (CL-BIB-0499)

Preparation of a Radon/New Construction Report (CL-BIB-0530)

Assessment of Health Effects from Indoor Air Pollutants (CL-BIB-0591)

Radon Mitigation Development and Demonstration Program (CL-BIB-0593)

Radon Mitigation and Prevention Techniques for Schools and Workplaces (CL-BIB-0598)

New House Evaluation Program (New HEP) for Radon Reduction in New Construction (CL-BIB-0599)

Demonstration of Sealing and Passive Drain Tile and Subslab Ventilation for Radon Mitigation (CL-BIB-0600)

Development and Demonstration of Radon Mitigation Techniques for School Buildings (CL-BIB-0601)

National Survey of Residential Radon Exposures (CL-BIB-0602)

House Evaluation Program to Evaluate the Cost and Effectiveness of Radon Mitigation Methods (CL-BIB-0603)

Investigation of Methodologies for Characterizing the Radon Potential of Building Sites (CL-BIB-0604)

152 (RESIDENTIAL BUILDING CONSTRUCTION)

Effectiveness of Various Surface Coatings and Concrete Blocks in Reducing Low Pressure-Driven Influx of Radon Through Concrete Block Basement Walls (CL-BIB-0499)

152 (RESIDENTIAL BUILDING CONSTRUCTION) (cont.)

Preparation of a Radon/New Construction Report (CL-BIB-0530)

Radon Mitigation Development and Demonstration Program (CL-BIB-0593)

New House Evaluation Program (New HEP) for Radon Reduction in New Construction (CL-BIB-0599)

Demonstration of Sealing and Passive Drain Tile and Subslab Ventilation for Radon Mitigation (CL-BIB-0600)

National Survey of Residential Radon Exposures (CL-BIB-0602)

House Evaluation Program to Evaluate the Cost and Effectiveness of Radon Mitigation Methods (CL-BIB-0603)

Investigation of Methodologies for Characterizing the Radon Potential of Building Sites (CL-BIB-0604)

1521 (SINGLE-FAMILY HOUSING CONSTRUCTION)

Effectiveness of Various Surface Coatings and Concrete Blocks in Reducing Low Pressure-Driven Influx of Radon Through Concrete Block Basement Walls (CL-BIB-0499)

Preparation of a Radon/New Construction Report (CL-BIB-0530)

Radon Mitigation Development and Demonstration Program (CL-BIB-0593)

New House Evaluation Program (New HEP) for Radon Reduction in New Construction (CL-BIB-0599)

Demonstration of Sealing and Passive Drain Tile and Subslab Ventilation for Radon Mitigation (CL-BIB-0600)

National Survey of Residential Radon Exposures (CL-BIB-0602)

House Evaluation Program to Evaluate the Cost and Effectiveness of Radon Mitigation Methods (CL-BIB-0603)

Investigation of Methodologies for Characterizing the Radon Potential of Building Sites (CL-BIB-0604)

1522 (RESIDENTIAL CONSTRUCTION, NEC)

Preparation of a Radon/New Construction Report (CL-BIB-0530)

Radon Mitigation Development and Demonstration Program (CL-BIB-0593)

1522 (RESIDENTIAL CONSTRUCTION, NEC) (cont.)

Investigation of Methodologies for Characterizing the Radon Potential of Building Sites (CL-BIB-0604)

154 (NONRESIDENTIAL BUILDING CONSTRUCTION)

Asbestos NESHAP Revision (CL-BIB-0018)

Manual on Indoor Air Quality Problems in Commerical Buildings (CL-BIB-0341)

Asbestos NESHAP Demolition and Renovation Inspection Safety Procedures Workshop Manual (CL-BIB-0342)

Assessment of Health Effects from Indoor Air Pollutants (CL-BIB-0591)

Radon Mitigation and Prevention Techniques for Schools and Workplaces (CL-BIB-0598)

Development and Demonstration of Radon Mitigation Techniques for School Buildings (CL-BIB-0601)

Investigation of Methodologies for Characterizing the Radon Potential of Building Sites (CL-BIB-0604)

1541 (INDUSTRIAL BUILDINGS AND WAREHOUSES)

Asbestos NESHAP Revision (CL-BIB-0018)

Radon Mitigation and Prevention Techniques for Schools and Workplaces (CL-BIB-0598)

1542 (NONRESIDENTIAL CONSTRUCTION, NEC)

Manual on Indoor Air Quality Problems in Commerical Buildings (CL-BIB-0341)

Asbestos NESHAP Demolition and Renovation Inspection Safety Procedures Workshop Manual (CL-BIB-0342)

Assessment of Health Effects from Indoor Air Pollutants (CL-BIB-0591)

Radon Mitigation and Prevention Techniques for Schools and Workplaces (CL-BIB-0598)

Development and Demonstration of Radon Mitigation Techniques for School Buildings (CL-BIB-0601)

Investigation of Methodologies for Characterizing the Radon Potential of Building Sites (CL-BIB-0604)

15438-31-0 (IRON)
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1634-04-4 (ETHER, TERT-BUTYL METHYL)
Chemical Analysis of Particulate Filters (Colorado) (CL-BIB-0445)

Health Effects Testing of Methyl Tert-Butyl Ether (MTBE) (CL-BIB-0621)

Study to Determine the Impact of Rush Hour Traffic on Formaldehyde Levels (CL-BIB-0624)

17 (SPECIAL TRADE CONTRACTORS)
Asbestos NESHAP Revision (CL-BIB-0018)

Mortality and Industrial Hygiene Characteristics of Workers Exposed to Lead Chromate Paints - NCI (CL-BIB-0228)

Asbestos NESHAP Demolition and Renovation Inspection Safety Procedures Workshop Manual (CL-BIB-0342)

Emission Factor Development for PM10 and Metals from Outdoor Abrasive Blasting (CL-BIB-0577)

172 (PAINTING, PAPER HANGING, DECORATING)
Mortality and Industrial Hygiene Characteristics of Workers Exposed to Lead Chromate Paints - NCI (CL-BIB-0228)

1721 (PAINTING, PAPER HANGING, DECORATING)
Mortality and Industrial Hygiene Characteristics of Workers Exposed to Lead Chromate Paints - NCI (CL-BIB-0228)

1746-01-6 (TETRACHLORODIBENZODIOXIN,2,3,7,8-,P-)
Morbidity and Reproductive Study of U.S. Chemical Workers (CL-BIB-0236)

SOURCES, OCCURRENCE AND EFFECTS OF DIOXINS AND DIBENZOFURANS IN OHIO'S ENVIRONMENT (OH01 DIOXIN D001)

RUTLAND RESOURCE RECOVERY FACILITY SITE-SPECIFIC ENVIRONMENTAL ASSESSMENT (VT01 RUTLAND RRF01)

17796-82-6 (PHTHALIMIDE, N-(CYCLOHEXYLTHIO)-)
Chemical Hazard Information Profile for Cyclohexylthiophthalimide (CL-BIB-0345)

179 (MISC. SPECIAL TRADE CONTRACTORS)
Asbestos NESHAP Revision (CL-BIB-0018)

Asbestos NESHAP Demolition and Renovation Inspection Safety Procedures Workshop Manual (CL-BIB-0342)

179 (MISC. SPECIAL TRADE CONTRACTORS) (cont.)
Emission Factor Development for PM10 and Metals from Outdoor Abrasive Blasting (CL-BIB-0577)

1795 (WRECKING AND DEMOLITION WORK)
Asbestos NESHAP Revision (CL-BIB-0018)

Asbestos NESHAP Demolition and Renovation Inspection Safety Procedures Workshop Manual (CL-BIB-0342)

Emission Factor Development for PM10 and Metals from Outdoor Abrasive Blasting (CL-BIB-0577)

1825-30-5 (NAPHTHALENE, 1,5-DICHLORO-)
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2221 (WEAVING MILLS, SYNTHETICS)
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2241 (NARROW FABRIC MILLS)
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285 (PAINTS AND ALLIED PRODUCTS) (cont.)

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2869 (INDUSTRIAL ORGANIC CHEMICALS, NEC) (cont.)

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2891 (ADHESIVES AND SEALANTS)

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3325 (STEEL FOUNDRIES, NEC) (cont.)
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347 (METAL SERVICES, NEC) (cont.)
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AMBIENT ORGANICS IN OLNEYVILLE, RI AIR (RI01002)

3471 (PLATING AND POLISHING)
Field Testing and Method Evaluation of Chrome Electroplating Plants (CL-BIB-0361)

Chromium Electroplating NESHAP Development (CL-BIB-0384)

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3674 (SEMICONDUCTORS AND RELATED DEVICES)
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411 (LOCAL AND SUBURBAN TRANSPORTATION)
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412 (TAXICABS)
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4121 (TAXICABS)
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413 (INTERCITY HIGHWAY TRANSPORTATION)
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Control of Benzene Emissions from Light Duty Vehicles (CA01-A6-204-32)

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4131 (INTERCITY HIGHWAY TRANSPORTATION)
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421 (TRUCKING, LOCAL AND LONG DISTANCE)
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Case-Control Study of Lung Cancer in Teamsters Union (CL-BIB-0242)

49 (ELECTRIC, GAS, AND SANITARY SERVICES)
Emissions of Volatile and Potentially Toxic Organic Compounds from Waste Water Treatment Plants and Collection Systems (Phase 2) (CA01-CA-OR-3)

Exposure/Risk Assessment on Air Emissions From Treatment, Storage and Disposal Facilities (CL-BIB-0030)

Potential for Air Releases From CERCLA Sites (CL-BIB-0055)

Field Assessment of Waste Pretreatment at Refinery Land Treatment Facilities (CL-BIB-0141)

Engineering Study: Standards Development for Hazardous Waste Treatment, Storage, and Disposal Facilities (CL-BIB-0257)

Field Testing of Municipal Waste Combustors (CL-BIB-0362)

49 (ELECTRIC, GAS, AND SANITARY SERVICES) (cont.)

Investigation, Documentation and Testing of a Proposed Wet Deposition and Related Algorithms to ISC Models (CL-BIB-0370)

Reproposal of Regulation for Boilers, Industrial Furnaces, and Incinerators That Use Hazardous Waste as Fuel (CL-BIB-0386)

Multimedia, Multipollutant Field Study to Establish Levels of Toxics Contained in Air, Soil, Sediments, Water and Agricultural Products from a Model Municipal Waste Combustor (CL-BIB-0389)

Development of New Methods for SW846 (CL-BIB-0405)

Particulate Matter-Organic Compounds Interactions on Municipal Incinerator Flyash (CL-BIB-0454)

Field Test Evaluation of a Methodology for Measuring Emissions of Selected Toxic Metals from Stationary Sources (CL-BIB-0455)

Study on the Formation of Aerosols and Particulates from the Incineration of Metals (CL-BIB-0475)

Dilution Sampling System (CL-BIB-0477)

Products of Incomplete Combustion (PICs) in Rotary Kiln Simulator (CL-BIB-0485)

Test Method Development for Pathogen Monitoring of Medical Waste Incinerators (CL-BIB-0546)

Development of Continuous Emission Monitoring Guidelines for Municipal Waste Combustion (CL-BIB-0547)

Field Assessment of Emissions from a Waste Stabilization Process (CL-BIB-0568)

The Development of Emissions Estimation Procedures for Surface Impoundments (CL-BIB-0574)

Analysis of Emissions from Tire Burning (CL-BIB-0576)

Development of Risk Assessment Methodology for Municipal Sludge Incineration (CL-BIB-0594)

Superfund Cooperative Project - Application of Radon Mitigation Techniques to Superfund Sites (CL-BIB-0605)

Evaluation of Longpass Fourier Transformation Infra-Red (FTIR) Spectroscopy Remote Sensing Technology for VOCs (CL-BIB-0614)

ATSDR Toxicological Profiles (CL-BIB-0618)

49 (ELECTRIC, GAS, AND SANITARY SERVICES) (cont.)

Denver Brown Cloud Study #2 (CL-BIB-0623)

Bacterial Emissions from Incineration of Hospital Waste (IL01-871026)

Waste to Energy Recovery of Refuse as an Alternative to Landfill in Illinois (IL01-871037)

Interaction of Liberated Aluminum from a Coal-fired Electric Power Plant with a Hardwood Forest Ecosystem in Southwestern Illinois (IL01-871065)

Municipal Incinerator Emission Limits (IL01-871116)

RESULTS FROM THE ANALYSIS OF MSW INCINERATOR TESTING AT PEEKSKILL, N.Y. (NY01PROJECT 002)

RESULTS FROM THE ANALYSIS OF MSW INCINERATOR TESTING AT OSWEGO COUNTY, N.Y. (NY01PROJECT 003)

PHASE I RESOURCE RECOVERY-FACILITY EMISSION CHARACTERIZATION STUDY (NY01PROJECT 004)

OKLAHOMA AIR POLLUTION CONTROL REGULATION 2.3 (REVISION) (OK01 PROJECT 2.3)

RUTLAND RESOURCE RECOVERY FACILITY SITE-SPECIFIC ENVIRONMENTAL ASSESSMENT (VT01 RUTLAND RRF01)

ASSESSMENT OF EMISSIONS FROM ADJACENT INDUSTRIES IMPACTING THE BROOKHURST SUBDIVISION, NATRONA COUNTY, WYOMING (WY01 PROJECT 002)

491 (ELECTRIC SERVICES)

Interaction of Liberated Aluminum from a Coal-fired Electric Power Plant with a Hardwood Forest Ecosystem in Southwestern Illinois (IL01-871065)

4911 (ELECTRIC SERVICES)

Interaction of Liberated Aluminum from a Coal-fired Electric Power Plant with a Hardwood Forest Ecosystem in Southwestern Illinois (IL01-871065)

492 (GAS PRODUCTION AND DISTRIBUTION)

ASSESSMENT OF EMISSIONS FROM ADJACENT INDUSTRIES IMPACTING THE BROOKHURST SUBDIVISION, NATRONA COUNTY, WYOMING (WY01 PROJECT 002)

4922 (NATURAL GAS TRANSMISSION)

ASSESSMENT OF EMISSIONS FROM ADJACENT INDUSTRIES IMPACTING THE BROOKHURST SUBDIVISION, NATRONA COUNTY, WYOMING (WY01 PROJECT 002)

495 (SANITARY SERVICES)

Emissions of Volatile and Potentially Toxic Organic Compounds from Waste Water Treatment Plants and Collection Systems (Phase 2) (CA01-CA-OR-3)

Exposure/Risk Assessment on Air Emissions From Treatment, Storage and Disposal Facilities (CL-BIB-0030)

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Field Testing of Municipal Waste Combustors (CL-BIB-0362)

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Dilution Sampling System (CL-BIB-0477)

Products of Incomplete Combustion (PICs) in Rotary Kiln Simulator (CL-BIB-0485)

Test Method Development for Pathogen Monitoring of Medical Waste Incinerators (CL-BIB-0546)

Development of Continuous Emission Monitoring Guidelines for Municipal Waste Combustion (CL-BIB-0547)

495 (SANITARY SERVICES) (cont.)

Field Assessment of Emissions from a Waste Stabilization Process (CL-BIB-0568)

The Development of Emissions Estimation Procedures for Surface Impoundments (CL-BIB-0574)

Analysis of Emissions from Tire Burning (CL-BIB-0576)

Development of Risk Assessment Methodology for Municipal Sludge Incineration (CL-BIB-0594)

Superfund Cooperative Project - Application of Radon Mitigation Techniques to Superfund Sites (CL-BIB-0605)

Evaluation of Longpass Fourier Transformation Infra-Red (FTIR) Spectroscopy Remote Sensing Technology for VOCs (CL-BIB-0614)

ATSDR Toxicological Profiles (CL-BIB-0618)

Denver Brown Cloud Study #2 (CL-BIB-0623)

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OKLAHOMA AIR POLLUTION CONTROL REGULATION 2.3 (REVISION) (OK01 PROJECT 2.3)

RUTLAND RESOURCE RECOVERY FACILITY SITE-SPECIFIC ENVIRONMENTAL ASSESSMENT (VT01 RUTLAND RRF01)

4952 (SEWERAGE SYSTEMS)

Emissions of Volatile and Potentially Toxic Organic Compounds from Waste Water Treatment Plants and Collection Systems (Phase 2) (CA01-CA-OR-3)

The Development of Emissions Estimation Procedures for Surface Impoundments (CL-BIB-0574)

4953 (REFUSE SYSTEMS)

Exposure/Risk Assessment on Air Emissions From Treatment, Storage and Disposal Facilities (CL-BIB-0030)

Potential for Air Releases From CERCLA Sites (CL-BIB-0055)

4953 (REFUSE SYSTEMS) (cont.)

Field Assessment of Waste Pretreatment at Refinery Land Treatment Facilities (CL-BIB-0141)

Engineering Study: Standards Development for Hazardous Waste Treatment, Storage, and Disposal Facilities (CL-BIB-0257)

Field Testing of Municipal Waste Combustors (CL-BIB-0362)

Investigation, Documentation and Testing of a Proposed Wet Deposition and Related Algorithms to ISC Models (CL-BIB-0370)

Reproposal of Regulation for Boilers, Industrial Furnaces, and Incinerators That Use Hazardous Waste as Fuel (CL-BIB-0386)

Multimedia, Multipollutant Field Study to Establish Levels of Toxics Contained in Air, Soil, Sediments, Water and Agricultural Products from a Model Municipal Waste Combustor (CL-BIB-0389)

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Field Assessment of Emissions from a Waste Stabilization Process (CL-BIB-0568)

Analysis of Emissions from Tire Burning (CL-BIB-0576)

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Superfund Cooperative Project - Application of Radon Mitigation Techniques to Superfund Sites (CL-BIB-0605)

4953 (REFUSE SYSTEMS) (cont.)

Evaluation of Longpass Fourier Transformation Infra-Red (FTIR) Spectroscopy Remote Sensing Technology for VOCs (CL-BIB-0614)

ATSDR Toxicological Profiles (CL-BIB-0618)

Bacterial Emissions from Incineration of Hospital Waste (IL01-871026)

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OKLAHOMA AIR POLLUTION CONTROL REGULATION 2.3 (REVISION) (OK01 PROJECT 2.3)

RUTLAND RESOURCE RECOVERY FACILITY SITE-SPECIFIC ENVIRONMENTAL ASSESSMENT (VT01 RUTLAND RRF01)

4959 (SANITARY SERVICES, NEC)

Denver Brown Cloud Study #2 (CL-BIB-0623)

496 (STEAM SUPPLY)

RESULTS FROM THE ANALYSIS OF MSW INCINERATOR TESTING AT PEEKSKILL, N.Y. (NY01PROJECT 002)

RESULTS FROM THE ANALYSIS OF MSW INCINERATOR TESTING AT OSWEGO COUNTY, N.Y. (NY01PROJECT 003)

PHASE I RESOURCE RECOVERY-FACILITY EMISSION CHARACTERIZATION STUDY (NY01PROJECT 004)

4961 (STEAM SUPPLY)

RESULTS FROM THE ANALYSIS OF MSW INCINERATOR TESTING AT PEEKSKILL, N.Y. (NY01PROJECT 002)

RESULTS FROM THE ANALYSIS OF MSW INCINERATOR TESTING AT OSWEGO COUNTY, N.Y. (NY01PROJECT 003)

PHASE I RESOURCE RECOVERY-FACILITY EMISSION CHARACTERIZATION STUDY (NY01PROJECT 004)

50-00-0 (FORMALDEHYDE)

AMBIENT MEASUREMENT AND MODELING OF FORMALDEHYDE CONCENTRATIONS IN THE SOUTH COAST AIR BASIN (CA03-004)

Epidemiologic and Industrial Hygiene Support of Toxic Substance Control Act - EPA (CL-BIB-0232)

Toxics Air Monitoring Systems (TAMS) (CL-BIB-0286)

50-00-0 (FORMALDEHYDE) (cont.)
Process Evaluation of Ambient Air Monitoring Near a Sugar Beet Processing Plant in Idaho (CL-BIB-0296)
A Study of Formaldehyde from Pressed Wood Products (CL-BIB-0434)
Low Cost Personal Monitoring Devices for Indoor Air (CL-BIB-0471)
Real-Time Formaldehyde Monitor (CL-BIB-0525)
Development of a Polar VOC Detector Based on Photo-Induced Nucleation (CL-BIB-0526)
Madison Avenue Formaldehyde Study (CL-BIB-0535)
Staten Island-New Jersey Urban Air Toxics Assessment Program (CL-BIB-0553)
Study of Formaldehyde Emissions from the Manufacture of Veneer Wood Products (CL-BIB-0571)
Development of Formaldehyde Monitoring Techniques (CL-BIB-0590)
Study to Determine the Impact of Rush Hour Traffic on Formaldehyde Levels (CL-BIB-0624)
URBAN AIR TOXICS PROGRAM (MO01 MONITORING 1)

50-29-3 (DDT)
ATSDR Toxicological Profiles (CL-BIB-0618)

50-32-8 (BENZO(A)PYRENE)
URBAN AIR TOXICS PROGRAM (MO01 MONITORING 1)
THE TOTAL HUMAN ENVIRONMENTAL EXPOSURE STUDY (THEES) TO BENZO(A)PYRENE (NJ01 PROJECT 29529)

51 (WHOLESALE TRADE-NONDURABLE GOODS)
Ethylene Oxide Mortality Study - NCI (CL-BIB-0224)
Benzene II (CL-BIB-0585)

51207-31-9 (TETRACHLORODIBENZOFURAN,2,3,7,8-)
SOURCES, OCCURRENCE AND EFFECTS OF DIOXINS AND DIBENZOFURANS IN OHIO'S ENVIRONMENT (OH01 DIOXIN D001)
RUTLAND RESOURCE RECOVERY FACILITY SITE-SPECIFIC ENVIRONMENTAL ASSESSMENT (VT01 RUTLAND RRF01)

514 (GROCERIES AND RELATED PRODUCTS)
Ethylene Oxide Mortality Study - NCI (CL-BIB-0224)

5149 (GROCERIES AND RELATED PRODUCTS, NEC)
Ethylene Oxide Mortality Study - NCI (CL-BIB-0224)

517 (PETROLEUM AND PETROLEUM PRODUCTS)
Benzene II (CL-BIB-0585)

5172 (PETROLEUM PRODUCTS, NEC)
Benzene II (CL-BIB-0585)

529-20-4 (TOLUALDEHYDE,O-)
Development of a Polar VOC Detector Based on Photo-Induced Nucleation (CL-BIB-0526)

54-11-5 (L-NICOTINE)
Monitoring Human Exposure to Hazardous Air Pollutants (HAPs) (CL-BIB-0291)
The Particle Total Exposure Assessment Methodology (CL-BIB-0460)
Low Cost Personal Monitoring Devices for Indoor Air (CL-BIB-0471)
Compendium of Indoor Air Quality Measurement Methods (CL-BIB-0472)
Field Evaluation of Sampling and Analysis for Organic Pollutants in Indoor Air (CL-BIB-0515)

540-59-0 (DICHLOROETHYLENE,1,2-,CIS-TRANS-)
URBAN AIR TOXICS PROGRAM (MO01 MONITORING 1)

540-84-1 (PENTANE, 2,2,4-TRIMETHYL-)
Preliminary Evaluation of Test Methods for Volatile Organics in Hazardous Waste (CL-BIB-0480)

541-73-1 (DICHLOROBENZENE,1,3-)
URBAN AIR TOXICS PROGRAM (MO01 MONITORING 1)

542-75-6 (DICHLOROPROPENE,1,3-)
URBAN AIR TOXICS PROGRAM (MO01 MONITORING 1)

542-88-1 (CHLOROMETHYLETHER,BIS)
ATSDR Toxicological Profiles (CL-BIB-0618)

55 (AUTOMOTIVE DEALERS & SERVICE STATIONS)
Procedures for Estimating and Allocating Area Source Emissions of Air Toxics (CL-BIB-0545)
Benzene II (CL-BIB-0585)

55-63-0 (NITROGLYCERINE)
Case-Control Mortality Study of Nitroglycerin-Exposed Workers (CL-BIB-0247)

554 (GASOLINE SERVICE STATIONS)
Procedures for Estimating and Allocating Area Source Emissions of Air Toxics (CL-BIB-0545)

Benzene II (CL-BIB-0585)

5541 (GASOLINE SERVICE STATIONS)
Procedures for Estimating and Allocating Area Source Emissions of Air Toxics (CL-BIB-0545)

Benzene II (CL-BIB-0585)

56-23-5 (CARBON TETRACHLORIDE)
Hazardous Organic NESHAP (CL-BIB-0261)

Analysis of Non-Methane Organic Compounds (NMOC) Canisters for Selected Organic Compounds by GC/MSD (CL-BIB-0536)

Evaluation of Carbon Tetrachloride Emissions from an Agricultural and Industrial Chemical Production Facility (CL-BIB-0554)

Evaluation of a Modified Method for Measuring Emissions of Chlorinated Solvents from Stationary Sources (CL-BIB-0588)

ATSDR Toxicological Profiles (CL-BIB-0618)

URBAN AIR TOXICS PROGRAM (M001 MONITORING 1)

57-74-9 (CHLORDANE)
Chlordane/Radon Mitigation Project (CL-BIB-0338)

ATSDR Toxicological Profiles (CL-BIB-0618)

58-89-9 (LINDANE)
ATSDR Toxicological Profiles (CL-BIB-0618)

584-84-9 (TOLUENE-2,4-DIISOCYANATE)
Decision on Regulation of Air Emissions from Isocyanate Production Facilities (CL-BIB-0050)

Health Assessment Document for Toluene Diisocyanate (CL-BIB-0374)

58718-66-4 (HALOWAX 1000)
Mortality Study of Workers Exposed to Halowax (CL-BIB-0410)

58718-67-5 (HALOWAX 1001)
Mortality Study of Workers Exposed to Halowax (CL-BIB-0410)

593-70-4 (CHLOROFLUOROMETHANE)
Chlorofluorocarbon Chemical Substitutes (CL-BIB-0324)

60-12-8 (PHENETHYL ALCOHOL)
Information Gathering and Risk Analysis of Existing Data on Phenylethanol and Phenylethanol Acetate (CL-BIB-0077)

606-20-2 (DINITROTOLUENE,2,6-)
ATSDR Toxicological Profiles (CL-BIB-0618)

62-75-9 (N-NITROSODIMETHYLAMINE)
ATSDR Toxicological Profiles (CL-BIB-0618)

621-64-7 (N-NITROSO-N-PROPYLAMINE)
ATSDR Toxicological Profiles (CL-BIB-0618)

624-83-9 (METHYL ISOCYANATE)
Decision on Regulation of Air Emissions from Isocyanate Production Facilities (CL-BIB-0050)

Mortality Study of Chemical Plants in Kanawha Valley, West Virginia (CL-BIB-0221)

Health Assessment Document for Methyl Isocyanate (CL-BIB-0373)

630-08-0 (CARBON MONOXIDE)
Methods Development for Sampling Hazardous Waste Emissions from Stacks (CL-BIB-0289)

Field Testing of Municipal Waste Combustors (CL-BIB-0362)

Determination of Population Exposure to Mobile Source Pollutants (CL-BIB-0406)

Development of Continuous Emission Monitoring Guidelines for Municipal Waste Combustion (CL-BIB-0547)

Study to Determine the Impact of Rush Hour Traffic on Formaldehyde Levels (CL-BIB-0624)

64-17-5 (ETHANOL)
Chemical Analysis of Particulate Filters (Colorado) (CL-BIB-0445)

Study to Determine the Impact of Rush Hour Traffic on Formaldehyde Levels (CL-BIB-0624)

67-56-1 (METHANOL)
Decision on Regulation of Methanol Under the Clean Air Act (CL-BIB-0278)

Madison Avenue Formaldehyde Study (CL-BIB-0535)

Evaluation of Emissions and Control Options at Waferboard Plants (CL-BIB-0617)

67-63-0 (ISOPROPANOL)
Health Effects Testing of Isopropanol (CL-BIB-0619)

67-64-1 (ACETONE)
Process Evaluation of Ambient Air Monitoring Near a Sugar Beet Processing Plant in Idaho (CL-BIB-0296)

67-66-3 (CHLOROFORM)
Hazardous Organic NESHAP (CL-BIB-0261)

Analysis of Non-Methane Organic Compounds (NMOC) Canisters for Selected Organic Compounds by GC/MSD (CL-BIB-0536)

Evaluation of a Modified Method for Measuring Emissions of Chlorinated Solvents from Stationary Sources (CL-BIB-0588)

URBAN AIR TOXICS PROGRAM (MO01 MONITORING 1)

DEVELOPMENT OF A HUMAN EXHALED BREATH SAMPLING SYSTEM (NJ01 PROJECT 29955)

68-12-2 (DIMETHYLFORMAMIDE,N,N-)
Dimethylformamide - NTP Chemical Management (CL-BIB-0186)

71-36-3 (BUTYL ALCOHOL)
Preliminary Evaluation of Test Methods for Volatile Organics in Hazardous Waste (CL-BIB-0480)

71-43-2 (BENZENE)
Study to Determine the Fate of Benzene Precursors in Gasoline (CA01-A5-128-32)

Control of Benzene Emissions from Light Duty Vehicles (CA01-A6-204-32)

Update of Completed Cohort Mortality Studies - NCI (CL-BIB-0227)

Analysis of Non-Methane Organic Compounds (NMOC) Canisters for Selected Organic Compounds by GC/MSD (CL-BIB-0536)

Benzene II (CL-BIB-0585)

URBAN AIR TOXICS PROGRAM (MO01 MONITORING 1)

DEVELOPMENT OF A HUMAN EXHALED BREATH SAMPLING SYSTEM (NJ01 PROJECT 29955)

ASSESSMENT OF EMISSIONS FROM ADJACENT INDUSTRIES IMPACTING THE BROOKHURST SUBDIVISION, NATRONA COUNTY, WYOMING (WY01 PROJECT 002)

71-55-6 (TRICHLOROETHANE,1,1,1-)
Field Evaluation of a Heavy Gas Detection and Dispersion Approach Using a Whole Air Technique (CL-BIB-0347)

Refinement of a Detection and Analysis Approach to Volatile Organic Compound Release Characterization Using a Whole Air Technique (CL-BIB-0348)

URBAN AIR TOXICS PROGRAM (MO01 MONITORING 1)

DEVELOPMENT OF A HUMAN EXHALED BREATH SAMPLING SYSTEM (NJ01 PROJECT 29955)

AMBIENT ORGANICS IN OLNEYVILLE, RI AIR (RI01002)

72 (PERSONAL SERVICES)
Urban Air Toxics Program (CL-BIB-0359)

72-54-8 (RHOTHANE)
ATSDR Toxicological Profiles (CL-BIB-0618)

72-55-9 (DDE,P,P'-)
ATSDR Toxicological Profiles (CL-BIB-0618)

721 (LAUNDRY, CLEANING, & GARMENT SERVICES)
Urban Air Toxics Program (CL-BIB-0359)

7215 (COIN-OPERATED LAUNDRIES AND CLEANING)
Urban Air Toxics Program (CL-BIB-0359)

7216 (DRY CLEANING PLANTS, EXCEPT RUG)
Urban Air Toxics Program (CL-BIB-0359)

73 (BUSINESS SERVICES)
ETHYLENE OXIDE REGULATIONS (OH04ETO)

739 (MISCELLANEOUS BUSINESS SERVICES)
ETHYLENE OXIDE REGULATIONS (OH04ETO)

7397 (COMMERCIAL TESTING LABORATORIES)
ETHYLENE OXIDE REGULATIONS (OH04ETO)

74-83-9 (METHYL BROMIDE)
URBAN AIR TOXICS PROGRAM (MO01 MONITORING 1)

74-87-3 (METHYL CHLORIDE)
URBAN AIR TOXICS PROGRAM (MO01 MONITORING 1)

74-90-8 (HYDROGEN CYANIDE)
Decision on Regulation of Hydrocyanic Acid Under the Clean Air Act (CL-BIB-0264)

74-90-8 (HYDROGEN CYANIDE) (cont.)

Summary Review of Health Effects Associated with Hydrogen Cyanide: Health Issue Assessment (CL-BIB-0566)

74-97-5 (BROMOCHLOROMETHANE)

URBAN AIR TOXICS PROGRAM (M001 MONITORING 1)

7429-90-5 (ALUMINUM)

Interaction of Liberated Aluminum from a Coal-fired Electric Power Plant with a Hardwood Forest Ecosystem in Southwestern Illinois (IL01-871065)

7439-92-1 (LEAD POWDER)

An Assessment of the Effectiveness of OSHA's Lead Standard (CL-BIB-0413)

Sources of Fine Particle Organic Matter in Boise (CL-BIB-0451)

Field Test Evaluation of a Methodology for Measuring Emissions of Selected Toxic Metals from Stationary Sources (CL-BIB-0455)

URBAN AIR TOXICS PROGRAM (M001 MONITORING 1)

RUTLAND RESOURCE RECOVERY FACILITY SITE-SPECIFIC ENVIRONMENTAL ASSESSMENT (VT01 RUTLAND RRF01)

7439-96-5 (MANGANESE)

Field Test Evaluation of a Methodology for Measuring Emissions of Selected Toxic Metals from Stationary Sources (CL-BIB-0455)

URBAN AIR TOXICS PROGRAM (M001 MONITORING 1)

7439-97-6 (MERCURY)

Field Test Evaluation of a Methodology for Measuring Emissions of Selected Toxic Metals from Stationary Sources (CL-BIB-0455)

ATSDR Toxicological Profiles (CL-BIB-0618)

RUTLAND RESOURCE RECOVERY FACILITY SITE-SPECIFIC ENVIRONMENTAL ASSESSMENT (VT01 RUTLAND RRF01)

7439-98-7 (MOLYBDENUM)

URBAN AIR TOXICS PROGRAM (M001 MONITORING 1)

7440-02-0 (NICKEL POWDER)

Estimating Exposure to Arsenic, Beryllium, Cadmium, Chromium, and Nickel From Coal and Oil Combustion (CL-BIB-0029)

URBAN AIR TOXICS PROGRAM (M001 MONITORING 1)

7440-02-0 (NICKEL POWDER) (cont.)

RUTLAND RESOURCE RECOVERY FACILITY SITE-SPECIFIC ENVIRONMENTAL ASSESSMENT (VT01 RUTLAND RRF01)

7440-02-2 (NICKEL)

Field Test Evaluation of a Methodology for Measuring Emissions of Selected Toxic Metals from Stationary Sources (CL-BIB-0455)

7440-09-7 (POTASSIUM)

Sources of Fine Particle Organic Matter in Boise (CL-BIB-0451)

7440-22-4 (SILVER)

Field Test Evaluation of a Methodology for Measuring Emissions of Selected Toxic Metals from Stationary Sources (CL-BIB-0455)

7440-28-0 (THALLIUM, SOLUBLE COMPOUNDS, AS TL)

Field Test Evaluation of a Methodology for Measuring Emissions of Selected Toxic Metals from Stationary Sources (CL-BIB-0455)

7440-36-0 (ANTIMONY)

Field Test Evaluation of a Methodology for Measuring Emissions of Selected Toxic Metals from Stationary Sources (CL-BIB-0455)

7440-38-2 (ARSENIC AND COMPOUNDS AS AS)

Estimating Exposure to Arsenic, Beryllium, Cadmium, Chromium, and Nickel From Coal and Oil Combustion (CL-BIB-0029)

Field Test Evaluation of a Methodology for Measuring Emissions of Selected Toxic Metals from Stationary Sources (CL-BIB-0455)

URBAN AIR TOXICS PROGRAM (M001 MONITORING 1)

RUTLAND RESOURCE RECOVERY FACILITY SITE-SPECIFIC ENVIRONMENTAL ASSESSMENT (VT01 RUTLAND RRF01)

7440-39-3 (BARIUM)

Field Test Evaluation of a Methodology for Measuring Emissions of Selected Toxic Metals from Stationary Sources (CL-BIB-0455)

URBAN AIR TOXICS PROGRAM (M001 MONITORING 1)

7440-41-7 (BERYLLIUM)

Estimating Exposure to Arsenic, Beryllium, Cadmium, Chromium, and Nickel From Coal and Oil Combustion (CL-BIB-0029)

Beryllium Retrospective Cohort Investigation - NCI (CL-BIB-0229)

Beryllium NESHAP Review (CL-BIB-0382)

Field Test Evaluation of a Methodology for Measuring Emissions of Selected Toxic Metals from Stationary Sources (CL-BIB-0455)

7440-41-7 (BERYLLIUM) (cont.)

URBAN AIR TOXICS PROGRAM (M001 MONITORING 1)

RUTLAND RESOURCE RECOVERY FACILITY SITE-SPECIFIC ENVIRONMENTAL ASSESSMENT (VT01 RUTLAND RRF01)

7440-43-9 (CADMIUM)

Estimating Exposure to Arsenic, Beryllium, Cadmium, Chromium, and Nickel From Coal and Oil Combustion (CL-BIB-0029)

Update of Completed Cohort Mortality Studies - NCI (CL-BIB-0227)

Engineering Study: Standards Development for Hazardous Waste Treatment, Storage, and Disposal Facilities (CL-BIB-0257)

Field Test Evaluation of a Methodology for Measuring Emissions of Selected Toxic Metals from Stationary Sources (CL-BIB-0455)

URBAN AIR TOXICS PROGRAM (M001 MONITORING 1)

RUTLAND RESOURCE RECOVERY FACILITY SITE-SPECIFIC ENVIRONMENTAL ASSESSMENT (VT01 RUTLAND RRF01)

7440-47-3 (CHROMIUM)

Fate of Hexavalent Chromium in the Atmosphere (CA01-A6-096-32)

Estimating Exposure to Arsenic, Beryllium, Cadmium, Chromium, and Nickel From Coal and Oil Combustion (CL-BIB-0029)

Mortality and Industrial Hygiene Characteristics of Workers Exposed to Lead Chromate Paints - NCI (CL-BIB-0228)

Health Assessment for Chromium, Update (CL-BIB-0279)

Field Testing and Method Evaluation for Industrial Cooling Towers (CL-BIB-0360)

Field Testing and Method Evaluation of Chrome Electroplating Plants (CL-BIB-0361)

Chromium Electroplating NESHAP Development (CL-BIB-0384)

Industrial Cooling Towers Chromium NESHAP Development (CL-BIB-0385)

Field Test Evaluation of a Methodology for Measuring Emissions of Selected Toxic Metals from Stationary Sources (CL-BIB-0455)

Locating and Estimating Air Emissions from Sources of Chromium (CL-BIB-0544)

7440-47-3 (CHROMIUM) (cont.)

Evaluation of Chromium Emissions from a Specialty Steel Plant (CL-BIB-0575)

Development of Control Strategies for Chromium Emissions from Chrome Plating Facilities (CL-BIB-0579)

URBAN AIR TOXICS PROGRAM (M001 MONITORING 1)

RUTLAND RESOURCE RECOVERY FACILITY SITE-SPECIFIC ENVIRONMENTAL ASSESSMENT (VT01 RUTLAND RRF01)

JORGENSEN STEEL BAGHOUSE CHROMIUM EMISSIONS (WA02 PSAPCA 10)

7440-48-4 (COBALT)

URBAN AIR TOXICS PROGRAM (M001 MONITORING 1)

7440-50-8 (COPPER)

Field Test Evaluation of a Methodology for Measuring Emissions of Selected Toxic Metals from Stationary Sources (CL-BIB-0455)

URBAN AIR TOXICS PROGRAM (M001 MONITORING 1)

7440-62-2 (VANADIUM)

URBAN AIR TOXICS PROGRAM (M001 MONITORING 1)

7440-66-6 (ZINC)

Field Test Evaluation of a Methodology for Measuring Emissions of Selected Toxic Metals from Stationary Sources (CL-BIB-0455)

ATSDR Toxicological Profiles (CL-BIB-0618)

URBAN AIR TOXICS PROGRAM (M001 MONITORING 1)

7446-09-5 (SULFUR DIOXIDE)

Field Testing of Municipal Waste Combustors (CL-BIB-0362)

THE ARS PROJECT (AGGREGATE REDUCED SULFUR) (FL02ARS0002)

7487-94-7 (MERCURIC CHLORIDE)

Decision on Regulation of Mercuric Chloride Under the Clean Air Act (CL-BIB-0277)

75-00-3 (CHLOROETHANE)

Decision on Regulation of Ethyl Chloride Under the Clean Air Act (CL-BIB-0268)

ATSDR Toxicological Profiles (CL-BIB-0618)

URBAN AIR TOXICS PROGRAM (M001 MONITORING 1)

75-01-4 (VINYL CHLORIDE)
Update of Completed Cohort Mortality Studies - NCI (CL-BIB-0227)

URBAN AIR TOXICS PROGRAM (MO01 MONITORING 1)

75-07-0 (ACETALDEHYDE)
Decision on Regulation of Acetaldehyde Under the Clean Air Act (CL-BIB-0034)

Health Assessment Document for Acetaldehyde (CL-BIB-0061)

Acetaldehyde Preliminary Source Assessment (CL-BIB-0256)

Engineering Study: Standards Development for Hazardous Waste Treatment, Storage, and Disposal Facilities (CL-BIB-0257)

Process Evaluation of Ambient Air Monitoring Near a Sugar Beet Processing Plant in Idaho (CL-BIB-0296)

Development of a Polar VOC Detector Based on Photo-Induced Nucleation (CL-BIB-0526)

URBAN AIR TOXICS PROGRAM (MO01 MONITORING 1)

75-09-2 (METHYLENE CHLORIDE)
Hazardous Organic NESHAP (CL-BIB-0261)

Integrated Solvents Workgroup (CL-BIB-0437)

Preliminary Evaluation of Test Methods for Volatile Organics in Hazardous Waste (CL-BIB-0480)

Analysis of Non-Methane Organic Compounds (NMOC) Canisters for Selected Organic Compounds by GC/MSD (CL-BIB-0536)

Evaluation of Methylene Chloride Emissions from a Pharmaceutical Facility (CL-BIB-0537)

URBAN AIR TOXICS PROGRAM (MO01 MONITORING 1)

75-21-8 (ETHYLENE OXIDE)
Temporal Factors Influencing Carcinogenicity of Industrial Chemicals (CL-BIB-0190)

Mortality Study of Chemical Plants in Kanawha Valley, West Virginia (CL-BIB-0221)

Ethylene Oxide Mortality Study - NCI (CL-BIB-0224)

Epidemiologic and Industrial Hygiene Support of Toxic Substance Control Act - EPA (CL-BIB-0232)

75-21-8 (ETHYLENE OXIDE) (cont.)
Hazardous Organic NESHAP (CL-BIB-0261)

Support of EPA's Environmental Epidemiologic Program (CL-BIB-0409)

Evaluation of Ethylene Oxide Emissions from an Artificial Kidney Dialysis Machine Production Facility (CL-BIB-0538)

Health Assessment Document for Ethylene Oxide (CL-BIB-0556)

ETHYLENE OXIDE REGULATIONS (OH04ETO)

75-25-2 (BROMOFORM)
URBAN AIR TOXICS PROGRAM (MO01 MONITORING 1)

75-27-4 (BROMODICHLOROMETHANE)
ATSDR Toxicological Profiles (CL-BIB-0618)

URBAN AIR TOXICS PROGRAM (MO01 MONITORING 1)

75-34-3 (DICHLOROETHANE,1,1-)
ATSDR Toxicological Profiles (CL-BIB-0618)

URBAN AIR TOXICS PROGRAM (MO01 MONITORING 1)

75-35-4 (DICHLOROETHYLENE,1,1-)
URBAN AIR TOXICS PROGRAM (MO01 MONITORING 1)

75-44-5 (PHOSGENE)
Decision on Regulation of Phosgene Under the Clean Air Act (CL-BIB-0046)

Decision on Regulation of Air Emissions from Isocyanate Production Facilities (CL-BIB-0050)

Health Assessment Document for Phosgene (CL-BIB-0063)

Engineering Study: Standards Development for Hazardous Waste Treatment, Storage, and Disposal Facilities (CL-BIB-0257)

75-56-9 (PROPYLENE OXIDE)
Decision on Regulation of Propylene Oxide Under the Clean Air Act (CL-BIB-0048)

76 (MISCELLANEOUS REPAIR SERVICES)
Prospective Epidemiologic Industrial Hygiene Study of Mild Steel Welders (CL-BIB-0202)

Retrospective Cohort Investigation of Non-Asbestos Welders (CL-BIB-0240)

7631-86-9 (SILICA)
Effective Silica Indices of Respirable Mineral Dusts (CL-BIB-0195)

North Carolina Dusty Trades File (CL-BIB-0207)

Morbidity/Mortality Study of Industrial Sand Industry (CL-BIB-0208)

7647-01-0 (HYDROGEN CHLORIDE)
Decision on Regulation of Chlorine and Hydrochloric Acid Under the Clean Air Act (CL-BIB-0037)

Decision on Regulation of Air Emissions from Isocyanate Production Facilities (CL-BIB-0050)

Health Assessment Document for Chlorine and Hydrogen Chloride, External Review (CL-BIB-0280)

ASSESSMENT OF EMISSIONS FROM ADJACENT INDUSTRIES IMPACTING THE BROOKHURST SUBDIVISION, NATRONA COUNTY, WYOMING (WY01 PROJECT 002)

7647-01-1 (HYDROCHLORIC ACID)
Methods Development for Sampling Hazardous Waste Emissions from Stacks (CL-BIB-0289)

Field Testing of Municipal Waste Combustors (CL-BIB-0362)

Development of Continuous Emission Monitoring Guidelines for Municipal Waste Combustion (CL-BIB-0547)

7664-41-7 (AMMONIA)
Decision on Regulation of Ammonia Under the Clean Air Act (CL-BIB-0036)

Summary Review of Health Effects Associated with Ammonia: Health Issue Assessment (CL-BIB-0557)

7664-93-9 (SULFURIC ACID)
ASSESSMENT OF EMISSIONS FROM ADJACENT INDUSTRIES IMPACTING THE BROOKHURST SUBDIVISION, NATRONA COUNTY, WYOMING (WY01 PROJECT 002)

769 (MISCELLANEOUS REPAIR SHOPS)
Prospective Epidemiologic Industrial Hygiene Study of Mild Steel Welders (CL-BIB-0202)

Retrospective Cohort Investigation of Non-Asbestos Welders (CL-BIB-0240)

7692 (WELDING REPAIR)
Prospective Epidemiologic Industrial Hygiene Study of Mild Steel Welders (CL-BIB-0202)

7692 (WELDING REPAIR) (cont.)
Retrospective Cohort Investigation of Non-Asbestos Welders (CL-BIB-0240)

7704-34-9 (SULFUR)
Assessment of the Controllability of Condensible Emissions (CL-BIB-0569)

7723-14-0 (PHOSPHORUS (YELLOW))
Decision on Regulation of Phosphorus Under the Clean Air Act (CL-BIB-0267)

Field Test Evaluation of a Methodology for Measuring Emissions of Selected Toxic Metals from Stationary Sources (CL-BIB-0455)

Summary Review of Health Effects Associated with Organic Phosphorus: Health Issue Assessment (CL-BIB-0562)

Summary Review of Health Effects Associated with Inorganic Phosphorus: Health Issue Assessment (CL-BIB-0563)

7727-37-9 (NITROGEN)
Assessment of the Controllability of Condensible Emissions (CL-BIB-0569)

7758-97-6 (LEAD CHROMATE)
Mortality and Industrial Hygiene Characteristics of Workers Exposed to Lead Chromate Paints - NCI (CL-BIB-0228)

7782-49-2 (SELENIUM COMPOUNDS, AS SE)
Decision on Regulation of Selenium and Its Compounds Under the Clean Air Act (CL-BIB-0270)

Field Test Evaluation of a Methodology for Measuring Emissions of Selected Toxic Metals from Stationary Sources (CL-BIB-0455)

ATSDR Toxicological Profiles (CL-BIB-0618)

7782-50-5 (CHLORINE)
Decision on Regulation of Chlorine and Hydrochloric Acid Under the Clean Air Act (CL-BIB-0037)

Health Assessment Document for Chlorine and Hydrogen Chloride, External Review (CL-BIB-0280)

7783-06-4 (HYDROGEN SULFIDE)
Decision on Regulation of Hydrogen Sulfide Under the Clean Air Act (CL-BIB-0042)

Health Assessment Document for Hydrogen Sulfide (CL-BIB-0062)

7783-06-4 (HYDROGEN SULFIDE) (cont.)
THE ARS PROJECT (AGGREGATE REDUCED SULFUR) (FL02ARS0002)

ASSESSMENT OF EMISSIONS FROM ADJACENT INDUSTRIES IMPACTING THE BROOKHURST SUBDIVISION, NATRONA COUNTY, WYOMING (WY01 PROJECT 002)

7784-42-1 (ARSINE)
Study to Evaluate Scrubbers as a Control for Arsine and Phosphine Emissions in the Semiconductor Industry (CL-BIB-0570)

78-40-0 (TRIETHYL PHOSPHATE)
Risk Analysis of Existing Data on Triethyl Phosphate (CL-BIB-0075)

78-59-1 (ISOPHORONE)
ATSDR Toxicological Profiles (CL-BIB-0618)

78-87-5 (DICHLOROPROPANE,1,2-)
ATSDR Toxicological Profiles (CL-BIB-0618)

URBAN AIR TOXICS PROGRAM (MO01 MONITORING 1)

78-93-3 (METHYL ETHYL KETONE)
Preliminary Evaluation of Test Methods for Volatile Organics in Hazardous Waste (CL-BIB-0480)

7803-51-2 (PHOSPHINE)
Study to Evaluate Scrubbers as a Control for Arsine and Phosphine Emissions in the Semiconductor Industry (CL-BIB-0570)

79-00-5 (TRICHLOROETHANE,1,1,2-)
ATSDR Toxicological Profiles (CL-BIB-0618)

URBAN AIR TOXICS PROGRAM (MO01 MONITORING 1)

79-01-6 (TRICHLOROETHYLENE)
Hazardous Organic NESHAP (CL-BIB-0261)

Health Assessment for Trichloroethylene Cancer Update (CL-BIB-0282)

Locating and Estimating Air Emissions from Sources of Perchloroethylene and Trichloroethylene (CL-BIB-0356)

Integrated Solvents Workgroup (CL-BIB-0437)

Analysis of Non-Methane Organic Compounds (NMOC) Canisters for Selected Organic Compounds by GC/MSD (CL-BIB-0536)

Evaluation of a Modified Method for Measuring Emissions of Chlorinated Solvents from Stationary Sources (CL-BIB-0588)

URBAN AIR TOXICS PROGRAM (MO01 MONITORING 1)

79-01-6 (TRICHLOROETHYLENE) (cont.)
DEVELOPMENT OF A HUMAN EXHALED BREATH SAMPLING SYSTEM (NJ01 PROJECT 29955)

AMBIENT ORGANICS IN OLNEYVILLE, RI AIR (RI01002)

79-34-5 (TETRACHLOROETHANE,1,1,2,2-)
URBAN AIR TOXICS PROGRAM (MO01 MONITORING 1)

80 (HEALTH SERVICES)
Ethylene Oxide Mortality Study - NCI (CL-BIB-0224)

Support of EPA's Environmental Epidemiologic Program (CL-BIB-0409)

ETHYLENE OXIDE REGULATIONS (OH04ETO)

80-56-8 (PINENE,ALPHA-)
Evaluation of Emissions and Control Options at Waferboard Plants (CL-BIB-0617)

80-62-6 (METHYL METHACRYLATE)
Summary Review of Health Effects Associated with Methyl Methacrylate: Health Issue Assessment (CL-BIB-0558)

8001-20-6 (KEROSENE)
Chamber Studies Characterizing the Organic Emissions from Kerosene Space Heaters: Phase II (CL-BIB-0449)

8006-61-9 (GASOLINE)
Decision on Regulation of Gasoline Vapors Under the Clean Air Act (CL-BIB-0041)

Chemical Analysis of Particulate Filters (Colorado) (CL-BIB-0445)

New Studies of Population Exposure to VOCs and Major Sources of Exposure (CL-BIB-0498)

Denver Brown Cloud Study #2 (CL-BIB-0623)

8021-39-4 (CREOSOTE)
Study to Determine Control Options for Creosote Wood Treatment Process (CL-BIB-0572)

806 (HOSPITALS)
Ethylene Oxide Mortality Study - NCI (CL-BIB-0224)

Support of EPA's Environmental Epidemiologic Program (CL-BIB-0409)

ETHYLENE OXIDE REGULATIONS (OH04ETO)

8062 (GENERAL MEDICAL & SURGICAL HOSPITALS)
Support of EPA's Environmental Epidemiologic Program (CL-BIB-0409)

ETHYLENE OXIDE REGULATIONS (OH04ETO)

82 (EDUCATIONAL SERVICES)
Radon Mitigation and Prevention Techniques for Schools and Workplaces (CL-BIB-0598)

Development and Demonstration of Radon Mitigation Techniques for School Buildings (CL-BIB-0601)

Radon Measurements in Schools (CL-BIB-0606)

National Assessment of Radon Gas (SARA Section 118(k)) (CL-BIB-0607)

821 (ELEMENTARY AND SECONDARY SCHOOLS)
Radon Mitigation and Prevention Techniques for Schools and Workplaces (CL-BIB-0598)

Development and Demonstration of Radon Mitigation Techniques for School Buildings (CL-BIB-0601)

Radon Measurements in Schools (CL-BIB-0606)

National Assessment of Radon Gas (SARA Section 118(k)) (CL-BIB-0607)

8211 (ELEMENTARY AND SECONDARY SCHOOLS)
Radon Mitigation and Prevention Techniques for Schools and Workplaces (CL-BIB-0598)

Development and Demonstration of Radon Mitigation Techniques for School Buildings (CL-BIB-0601)

Radon Measurements in Schools (CL-BIB-0606)

National Assessment of Radon Gas (SARA Section 118(k)) (CL-BIB-0607)

822-06-0 (HEXAMETHYLENE DIISOCYANATE)
Health Effects Testing of 1,6-Hexamethylene Diisocyanate (CL-BIB-0620)

85-41-6 (PHTHALIMIDE)
Risk Analysis of Existing Data on Phthalimide (CL-BIB-0079)

85-44-9 (PHTHALIC ANHYDRIDE)
Decision on Regulation of Phthalic Anhydride Under the Clean Air Act (CL-BIB-0271)

85-44-9 (PHTHALIC ANHYDRIDE) (cont.)
Summary Review of Health Effects Associated with Phthalic Anhydride: Health Issue Assessment (CL-BIB-0559)

87-86-5 (PENTACHLOROPHENOL)
ATSDR Toxicological Profiles (CL-BIB-0618)

88 (PRIVATE HOUSEHOLDS)
Indoor Air Quality Research (CL-BIB-0290)

Residential Wood Combustion and Automotive Emissions on the Boise, Idaho Air Shed (CL-BIB-0407)

Integrated Air Cancer Project (IACP) (CL-BIB-0408)

House Evaluation Program (CL-BIB-0425)

Guidelines for Collection of Data Pertaining to Consumer Exposure in Residential Settings (CL-BIB-0439)

Evaluation of Contaminant Migration in Indoor Air in Homes (CL-BIB-0440)

The Influence of Woodburning on the Mutagenicity of Air Outdoor and Indoors (CL-BIE-0457)

New Studies of Population Exposure to VOCs and Major Sources of Exposure (CL-BIB-0498)

Effectiveness of Various Surface Coatings and Concrete Blocks in Reducing Low Pressure-Driven Influx of Radon Through Concrete Block Basement Walls (CL-BIB-0499)

Design and Preliminary Evaluation of a Low Flow Rate Indoor Air Sampler (CL-BIB-0522)

Field Evaluation of Methodology for Semi-Volatile Compounds (CL-BIB-0523)

The Design and Installation of a Passive Radon Mitigation System (CL-BIB-0528)

New Home Construction Guide for Preventing Indoor Air Problems in New Homes (CL-BIB-0550)

Radon Mitigation Development and Demonstration Program (CL-BIB-0593)

National Survey of Residential Radon Exposures (CL-BIB-0602)

88 (PRIVATE HOUSEHOLDS) (cont.)

House Evaluation Program to Evaluate the Cost and Effectiveness of Radon Mitigation Methods (CL-BIB-0603)

Superfund Cooperative Project - Application of Radon Mitigation Techniques to Superfund Sites (CL-BIB-0605)

National Assessment of Radon Gas (SARA Section 118(k)) (CL-BIB-0607)

Report on Radon Measurements in Homes in Butte, Montana (CL-BIB-0610)

Study of the Release of Radon from Drinking Water into Indoor Air Environments (CL-BIB-0611)

Guide to Reduction of Indoor Radon in Illinois Homes (IL01-871113)

88-85-7 (DINITROBUTYLPHENOL,2,4-,6-SEC-)

Dilution Sampling System (CL-BIB-0477)

881 (PRIVATE HOUSEHOLDS)

Indoor Air Quality Research (CL-BIB-0290)

Residential Wood Combustion and Automotive Emissions on the Boise, Idaho Air Shed (CL-BIB-0407)

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881 (PRIVATE HOUSEHOLDS) (cont.)

Field Evaluation of Methodology for Semi-Volatile Compounds (CL-BIB-0523)

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8811 (PRIVATE HOUSEHOLDS)

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Guidelines for Collection of Data Pertaining to Consumer Exposure in Residential Settings (CL-BIB-0439)

Evaluation of Contaminant Migration in Indoor Air in Homes (CL-BIB-0440)

The Influence of Woodburning on the Mutagenicity of Air Outdoor and Indoors (CL-BIB-0457)

8811 (PRIVATE HOUSEHOLDS) (cont.)

New Studies of Population Exposure to VOCs and Major Sources of Exposure (CL-BIB-0498)

Effectiveness of Various Surface Coatings and Concrete Blocks in Reducing Low Pressure-Driven Influx of Radon Through Concrete Block Basement Walls (CL-BIB-0499)

Design and Preliminary Evaluation of a Low Flow Rate Indoor Air Sampler (CL-BIB-0522)

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The Design and Installation of a Passive Radon Mitigation System (CL-BIB-0528)

New Home Construction Guide for Preventing Indoor Air Problems in New Homes (CL-BIB-0550)

Radon Mitigation Development and Demonstration Program (CL-BIB-0593)

National Survey of Residential Radon Exposures (CL-BIB-0602)

House Evaluation Program to Evaluate the Cost and Effectiveness of Radon Mitigation Methods (CL-BIB-0603)

Superfund Cooperative Project - Application of Radon Mitigation Techniques to Superfund Sites (CL-BIB-0605)

National Assessment of Radon Gas (SARA Section 118(k)) (CL-BIB-0607)

Report on Radon Measurements in Homes in Butte, Montana (CL-BIB-0610)

Study of the Release of Radon from Drinking Water into Indoor Air Environments (CL-BIB-0611)

Guide to Reduction of Indoor Radon in Illinois Homes (IL01-871113)

9003-53-6 (STYRENE, POLYMERS)

Evaluation of 1,3-Butadiene Emissions from a Styrene-Butadiene Latex Production Facility Before and After Controls (CL-BIB-0539)

9016-45-9 (ANTAROX)

Epidemiologic and Industrial Hygiene Support of Toxic Substance Control Act - EPA (CL-BIB-0232)

91-20-3 (NAPHTHALENE)

Preliminary Evaluation of Test Methods for Volatile Organics in Hazardous Waste (CL-BIB-0480)

91-94-1 (DICHLOROBENZIDINE,3,3'-)

ATSDR Toxicological Profiles (CL-BIB-0618)

92-87-5 (BENZIDINE)

ATSDR Toxicological Profiles (CL-BIB-0618)

93-76-5 (TRICHLOROPHENOXYACETICACID,2,4,5-)

Monitoring of Dioxin at Dioxin Removal Sites (CL-BIB-0613)

94-75-7 (DICHLOROPHENOXYACETICACID,2,4-)

Monitoring of Dioxin at Dioxin Removal Sites (CL-BIB-0613)

95-50-1 (DICHLOROBENZENE,1,2-)

URBAN AIR TOXICS PROGRAM (MO01 MONITORING 1)

95-80-7 (DIAMINOTOLUENE,2,4-)

Decision on Regulation of Air Emissions from Isocyanate Production Facilities (CL-BIB-0050)

98-95-3 (NITROBENZENE)

Development of a Polar VOC Detector Based on Photo-Induced Nucleation (CL-BIB-0526)

APPENDIX

APPENDIX

EPA OFFICE OF DRINKING WATER PROJECTS

The EPA Office of Drinking Water (ODW) has studies underway on several potentially toxic chemicals as part of its regulatory development activities. Information on these projects has been included in the National Air Toxics Information Clearinghouse ongoing research and regulatory development projects document because many toxic drinking water contaminants being studied by ODW are also potential air pollutants. Clearinghouse users may find health information generated by ODW projects useful. For further information on the projects described below, contact: Joseph Cotruvo or Alan Hais, Criteria and Standards Division, Office of Drinking Water (WH-550D), U. S. Environmental Protection Agency, 401 M Street, S.W., Washington, D.C., 20460, (202) 382-7575, (FTS) 382-7575.

Under the Safe Drinking Water Act (SDWA), the U. S. Environmental Protection Agency is required to publish regulations which apply to public drinking water systems and control specific contaminants which in the Administrator's judgment "may have any adverse effect on the health of persons." Information concerning these regulations is listed below.

Drinking Water Regulations under 1986 Amendments to SDWA

Significant directives to EPA's standard-setting program for drinking water contaminants included in the 1986 Amendments to the SDWA are provided below:

- EPA is to set Maximum Contaminant Level Goals (MCLGs) (previously called Recommended Maximum Contaminant Levels) and National Primary Drinking Water Regulations for 83 specific contaminants and for any other contaminant in drinking water which may have any adverse effect upon the health of persons and which is known or anticipated to occur in public water systems.

- No changes were made in the basis of an MCLG; i.e.:

  MCLGs are non-enforceable health goals which are to be set at the level at which no known or anticipated adverse effects on the health of persons occur and which allows an adequate margin of safety.

- Maximum Contaminant Levels (MCLs) are to be set as close to MCLGs as is feasible. The definition of "feasible" is as follows:

  Feasible means with the use of the best technology, treatment techniques and other means, which the Administrator finds, after examination for efficacy under field conditions and not solely under laboratory conditions, are generally available (taking costs into consideration).

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Granular Activated Carbon (GAC) is stated in the SDWA as feasible for the control of synthetic organic chemicals (SOCs), and any technology or other means found to be best available for control of SOCs must be at least as effective in controlling SOCs as GAC.

- o MCLGs and MCLs are to be proposed at the same time and also promulgated simultaneously.

- o MCLGs and MCLs/Monitoring requirements are to be set for 83 contaminants listed in the SDWA. The best available technology (BAT) must also be specified for each.

  The 83 contaminants are shown in Table A-1. Seven substitutes are allowed if regulation of any seven other contaminants would be more protective of public health. The list of substitutes must be proposed by June 19, 1987.

- o The timetable set by the SDWA to produce the MCLGs and MCLs/Monitoring requirements is as follows:

  - 9 by June 19, 1987
  - 40 by June 19, 1988
  - 34 by June 19, 1989

- o MCLGs and MCLs/Monitoring requirements are also to be set for other contaminants in drinking water that may pose a health risk.

  - The 1986 Amendments require the EPA to publish a list of drinking water contaminants that may require regulation under the SDWA.
  - The list must be published by January 1, 1988, and every 3 years following.
  - MCLGs and MCLs/Monitoring requirements are to be set for at least 25 contaminants on the list by January 1, 1991.
  - MCLGs and MCLs/Monitoring requirements are to be set for at least 25 contaminants every 3 years following January 1, 1991 (i.e., 1994, 1997, ...).

- o Criteria must be established from which States can determine which surface water systems must install filtration. The criteria are to be set by December 19, 1987.

- o A treatment technique regulation is to be set that will require all public water systems to use disinfection.

  - Variances are available. EPA will specify variance criteria.
  - The disinfection treatment rule must be promulgated by June 19, 1989.

- o Requirements are to be set for water systems to monitor for unregulated contaminants.
  - Minimum monitoring frequency would be five years.
  - States can add/delete contaminants from list.
  - Monitoring regulations must be promulgated by December 19, 1987.
- o MCLGs and MCLs/Monitoring requirements are to be reviewed by EPA every three years.
- o Other requirements/provisions of the 1986 Amendments:
  - Public notification regulations are to be changed to provide for different types and frequencies of notice depending upon the potential health risk. Final regulations are required to be promulgated September 19, 1987.
  - BAT for issuance of variances is to be set when MCLs are set. BAT may vary depending upon the size of systems and other factors, including costs.
  - Exemptions can be extended for systems with 500 connections or less. No limit is placed on the number of extensions but certain criteria will have to be met.
- o A summary of deadlines pertinent to standard-setting is presented in Table A-2.
- o The status of the National Primary Drinking Water Regulations is presented in Table A-3.

TABLE A-1. CONTAMINANTS REQUIRED TO BE REGULATED UNDER THE SDWA OF 1986

Volatile Organic Chemicals

Trichloroethylene
Tetrachloroethylene
Carbon tetrachloride
1,1,1-Trichloroethane
1,2-Dichloroethane
Vinyl chloride
Methylene chloride
Benzene
Chlorobenzene
Dichlorobenzene
Trichlorobenzene
1,1-Dichloroethylene
trans-1,2-Dichloroethylene
cis-1,2-Dichloroethylene

Microbiology and Turbidity

Total coliforms
Turbidity
Giardia lamblia
Viruses
Standard plate count
Legionella

Inorganics

Arsenic
Barium
Cadmium
Chromium
Lead
Mercury
Nitrate
Selenium
Silver
Fluoride
Aluminum
Antimony
Molybdenum
Asbestos
Sulfate
Copper
Vanadium
Sodium
Nickel
Zinc
Thallium
Beryllium
Cyanide

Organics

Endrin
Lindane
Methoxychlor
Toxaphene
2,4-D
2,4,5-TP
Aldicarb
Chlordane
Dalapon
Diquat
Endothall
1,1,2-Trichloroethane
Vydate
Simazine
PAHs
PCBs
Atrazine
Phthalates
Acrylamide
Dibromochloropropane (DBCP)
1,2-Dichloropropane
Pentachlorophenol

TABLE A-1. CONTAMINANTS REQUIRED TO BE REGULATED UNDER THE SDWA OF 1986 (Continued)

Organics (Continued)

Glyphosate
Carbofuran
Alachlor
Epichlorohydrin
Toluene
Adipates
2,3,7,8-TCDD (Dioxin)
Pichloram
Dinoseb
Ethylene dibromide (EDB)
Dibromomethane
Xylene
Hexachlorocyclopentadiene

Radionuclides

Radium 226 and 228
Beta particle and photon radioactivity
Uranium
Gross alpha particle activity
Radon

TABLE A-2. SUMMARY OF DEADLINES FOR STANDARDS UNDER SDWA OF 1986

What	When
Nine MCLGs and MCLs/Monitoring Requirements	June 19, 1987
Propose Seven Substitutes	June 19, 1987
Public Notice Revisions	September 19, 1987
Filtration Criteria	December 19, 1987
Monitoring for Unregulated Contaminants	December 19, 1987
List of Contaminants	January 1, 1988
40 MCLGs and MCLs/Monitoring Requirements	June 19, 1988
34 MCLGs and MCLs/Monitoring Requirements	June 19, 1989
Disinfection Treatment	June 19, 1989
25 MCLGs and MCLs/Monitoring Requirements	January 1, 1991

TABLE A-3. NATIONAL REVISED PRIMARY DRINKING WATER REGULATIONS SCHEDULE

Phase	Date/Federal Register Citation
Phase 1: VOCs	
Advance notice of proposed rulemaking	March 4, 1982 47 FR 9350
Proposed MCLGs	June 12, 1984 49 FR 24330
Final MCLGs, propose MCLs, monitoring requirements	November 13, 1985 50 FR 46880
Final MCLs and monitoring requirements	July 8, 1987 52 FR 25690
Phase 2: SOCs, IOCs, Microbials	
Advance notice of proposed rulemaking	October 5, 1983 48 FR 45502
Proposed MCLGs	November 13, 1985 50 FR 46936
Reproposed MCLGs, proposed MCLs, monitoring for SOCs, IOCs	May 1989
Microbials: Surface Water Treatment Rule and Total Coliforms	
Proposed MCLGs, MCLs, treatment technique and monitoring	November 3, 1987 52 FR 42178
Final rules	June 1989
Phase 2A: Fluoride	
Advance notice of proposed rulemaking	October 5, 1983 48 FR 45502
Proposed MCLG	May 14, 1985 50 FR 20164

TABLE A-3. NATIONAL REVISED PRIMARY DRINKING WATER REGULATIONS SCHEDULE (Continued)

Phase	Date
Final MCLG	November 14, 1985 50 FR 47142
Proposed MCL, SMCL, monitoring requirements	November 14, 1985 50 FR 47156
Final MCL, SMCL, monitoring requirements	April 2, 1986 51 FR 11396
Phase 3: Radionuclides	
Advance notice of proposed rulemaking	September 30, 1986 51 FR 34836
Proposed MCLGs, MCLs, BATs, monitoring requirements	June 1990
Phase 4: Disinfection By-products	
Interim MCL for total trihalomethanes	November 29, 1979 44 FR 68624
Proposed MCLGs, MCLs, monitoring requirements	September 1991
Final MCLGs, MCLs, monitoring requirements	September 1992
Phase 5:	
Proposed MCLGs, MCLs, monitoring for 25 IOCs, SOCs	March 1990
Final MCLGs, MCLs, monitoring requirements	March 1991
Lead/Copper: Corrosion By-products	
Advance notice of proposed rulemaking	October 5, 1983 48 FR 45502
Proposed MCLGs	November 13, 1985 50 FR 46936

TABLE A-3. NATIONAL REVISED PRIMARY DRINKING WATER REGULATIONS SCHEDULE (Continued)

Phase	Date
Reproposed MCLGs and proposed MCLs, treatment techniques	August 18, 1988 53 FR 31516
Final MCLGs, MCLs, treatment techniques	Spring 1990
Drinking Water Priority List/Substitutes:	
Proposed	July 8, 1987 52 FR 25720
Final	January 22, 1988 53 FR 1892

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